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SOCIOMETRY

A Journal of Inter-Personal Relations

VOLUME I

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A QUARTERLY

VOLUME I

JULY-OCTOBER, 1937

Nos. 1 & 2

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INTRODUCTION

THE HISTORY OF THE

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EDITORIAL FOREWORD

The integration of the social sciences is not an achievement likely to be carried to completion in our generation, or by any single method. The departmentalization of the sciences which deal with man has been a necessary feature of the intensive researches of recent years, and the protest against the resulting narrowness of research minds is scarcely likely to check such specialization. Integration will not come by fiat, neither can integration be achieved through a random juxtaposition of fragments of information from many friends, a glib scrambling of fashionable texts from biology, psychiatry and ethnology. The sinking of deep, vertical shafts, the true exploration of genuine fundamentals, must be honest and thoroughgoing if there are to be any valid materials to integrate. Perhaps even now the attempt at integration is immature. The test will lie in the quality of the research which actually comes from the minds of those who have exposed themselves long and seriously to material from both the biology and the social history of humankind.

It becomes evident indeed that the biology of man is, in a thousand ways, a reflection of his surroundings, that human evolution is going on apace, that variation, selection, differential fecundity and differential death rates are biological realities affected by the social situation. It becomes equally evident that the biology of the individual organism is deeply and profoundly responsive to the pressures of life circumstances. The endocrine system and the neuromuscular system respond to the stresses and strains of industrialism. Civilized man is an organism forced to make a very exceptional and special type of adaptation, and no physiologist, no psychologist, can study man as an organism except in the light of his ecology and his broader social antecedents. In the same way, the time has passed when a sociologist, historian, or cultural anthropologist could describe the stream of culture as something disembodied, a stable or a shifting pattern of customs bathing the individual organism in its waters but moving on its course indifferent to the bather. Culture has emerged from the last thirty years of research a name for a special and complex type of biological reality, a name for very complex integrations of habit, attitude and value, never really stable, never really impersonal, sensitive always to individual caprice, accidental exaggeration or deformation, and the production of new emergents arising unexpectedly under certain

circumstances of personal contact. The anthropologist today recognizes with gratitude the wisdom of Boas' original decision to prevent the separation of physical from cultural anthropology, and perhaps goes farther still than did that great pioneer in recognizing that the conditions of culture are limited by the biological potentialities of given men in given circumstances.

The psychiatrist has learned in recent years to speak naturally and easily of the impact of cultural forces upon the growing organism, and to state these cultural forces realistically in terms of parental personalities, the exigencies of school situations and the possible or impossible standards held up to the child or adolescent in movies, comic strips and radio drama. The relativity of all scientific schemes arising out of the nineteenth century middle class family has been more and more apparent; the varying conditions of primitive and of civilized life have been shown to yield very variable forms of personality distress. The psychiatrist who at one time regarded mental disease as essentially a problem in histology finds himself confronted today by personality deviations to which the scalpel and microscope offer a less fruitful clue than the sciences of human relations.

The journal which we launch with this number is one among the many attempts to draw research workers in the field of inter-personal relations together; to enable the human biologist to get light on his problems from the ethnologist, to guide the sociologist in the understanding of the biological peculiarities of human groups, to enable the psychologist to see the interplay of economic, geographical, and political facts in shaping the personal development of the individual human subject. Perhaps, above all, the primary task is to see the contribution of the arts as well as of the sciences to the understanding of human nature; a broadening of the recognition that man is approachable, not only from the avenue of biochemistry and genetics, but from the avenue of comparative linguistics, mythology, religion, and the history of the arts and sciences. Such, at least, is our ideal, our avowed purpose. We shall, of course, achieve no such comprehensive integration, but this is the goal towards which our contributions wish to aim.

Sociometry, the conception and technique which lends its title to the journal, embodies a device for ascertaining and measuring the positive social responses of each individual to each other individual in his social world, a means of describing the degrees and forms of intimacy longed for by each person in relation to

each of his fellows. It becomes, therefore, as a technique, one clue to the structure of all inter-personal relations. In so far as it is successful, it becomes an aid in the prosecution of all social studies, a means to the larger understanding of all groups however small or however large. Studies which emphasize the sociometric approach will be reported here in considerable number. It is obvious, however, from the foregoing, that sociometry by itself without adequate knowledge of the biology and the sociology of human organisms is a technique without a well defined task, a perfect key without a lock. Sociometry as a technique is fruitful exactly when and because it makes more clear and states more accurately the structure of complex inter-personal relations to which many other approaches jointly contribute understanding. At the same time, sociometry as a philosophy of group relations derives much of its strength from the psychiatrist's and the ethnologist's studies of the need for human affection and response. If sociometry is to be effective, it must be quick both to give and to receive, glad both to learn and to teach. The success of sociometric work in general and of our journal in particular will depend on the willingness of each discipline to learn from another and the capacity of each discipline to adapt itself to the changing needs of sister sciences. If the journal is a success, the reason will lie in the mutual interstimulation of those who share these pages, and the energy with which our readers point out our shortcomings and force us towards more and more unified, less sectarian definitions of our problems. In the last analysis, critical suggestions, both destructive and constructive, are as important as new manuscripts. We welcome the reader to attempt with us a step in the direction of seeing the life of man in modern society as a single great problem which, however complex, calls always for a generous and flexible recognition of his social as well as his biological needs, in the concrete unity of each individual personality.

THE HISTORY OF THE
CITY OF BOSTON

From the first settlement of the
city in 1630 to the present time
the city has grown from a small
village to a large metropolis.
The city has been the seat of
commerce and industry since
its founding. The city has
been the center of the
New England trade.
The city has been the
seat of the government of
the Commonwealth of Massachusetts.
The city has been the
center of the education of
the Commonwealth.
The city has been the
seat of the culture of the
Commonwealth.
The city has been the
center of the life of the
Commonwealth.
The city has been the
seat of the progress of the
Commonwealth.
The city has been the
center of the future of the
Commonwealth.

INTER-PERSONAL THERAPY AND THE PSYCHOPATHOLOGY OF INTER-PERSONAL RELATIONS¹

J. L. MORENO
Beacon Hill

SYNOPSIS

This paper presents forms of psychotherapy in which the personal and the inter-personal problems of patients can be treated at the same time. The first part describes the technique of the "auxiliary ego." It is illustrated in a case of an inter-personal disturbance between three persons—a triangular neurosis. The function of the auxiliary ego consists in getting the patient started. To get the patient started, one must know on which psychological level he is spontaneous. This often involves careful preparation of the patient. The spontaneous flow of relationship can be disturbed not only within but also between persons, and the three persons who form the neurosis are not able to act their problems out effectively. Then the auxiliary ego enters between them and prepares one for the other.

The second part of the paper presents another form of psychotherapy, one which can be applied widely—the psychodrama. It is a method of analysis as well as a method of training. One of its characteristic features is that body movement is organically included in the treatment process. It can be adapted to any age level. Problems in the nursery as well as the deepest psychic conflicts can be brought by its aid nearer solution. The psychodrama is human society in miniature, the simplest possible setup for a methodical study of its psychological structure. Through techniques like the auxiliary ego, spontaneous improvisation, self-presentation, soliloquy, the interpolation of resistance, new phases of the mind are opened up, and, what is most important, they can be explored under experimental conditions.

INTER-PERSONAL THERAPY

One of the great problems in mental therapeutics is how to get a patient started. To start the patient expressing himself is a crucial problem even when he comes with a *physical* disease. He has to describe his pains and other experiences related to it. He may hesitate, or he may put emphasis on insignificant details. It is a part of the physician's skill to start a patient off in the proper direction, so that he may give as precise and objective a description of his condition as possible. This task becomes imperative in the case of psychiatric patients. The patient with catatonic behavior may not be able to get started at all without outside aid, and the manically excited patient may go off on a tangent not amenable to suggestion and guidance.

In all situations described, the patient has simply to speak, to describe with words how he feels about his own problems.

¹The author is greatly indebted for reading and editing this paper to Gardner Murphy and to Gertrude Franchot Tone.

But in inter-personal therapy, especially in one of its forms which can be called *psychodramatics*, the task is enormously more complicated. Here he has to be made to express how he feels at present, not only through words, but through gestures and movements. He has to act not only in the role of his own ego, but in roles contrasting with his actual aspirations. He has to live through situations which are painful and undesirable. He has to live through roles which are obnoxious to him. He has, if necessary, to act with partners whom he fears and rejects. This situation in the psychodrama has compelled me to reconsider the function of the psychiatrist as well as the approach to the patient.

The function of the psychiatrist began to disturb me years ago when I started to use the therapeutic theatre² for patients. In his professional capacity, the psychiatrist has to restrain and discipline himself to appear always in the role in which he is expected to appear and for which he is employed, the role of doctor and healer. He cannot leave the role of the doctor and act as a lawyer or as a salesman. The more inflexibly, the more rigidly and obediently he sticks to his role, the higher is his conduct to be commended. Furthermore, even within the role, in the situations in which the doctor meets the patient, many formalities are involved which keeps the situation rigid, and the doctor at a certain distance from the patient. This pattern of conduct has to be carefully weighed before altered, even though suggested by an imperative reason.

This imperative reason seems to be given in the treatment of a certain group of mental patients. They are inadequate, at the same time, in many of the roles in which they act in life, as sexual partners, as work associates, as social companions, and alone in their isolated study. To date the psychiatrist with the patient in his office may certainly touch and disclose all these complexes in the course of his treatment. But however extensively considered they may be, all roles and situations remain "in" the patient's mind. In the office situation, the sexual partner remains

²The Greek word "therapeutes" means attendant, servant. The earliest therapeutic measure was devoted to driving out the demons from the bodies of the victims. The method usually consisted in the reciting of charms or magic over the ailing parts or over the sick person as a whole. The patient, as he was not able to drive out the demon himself, needed an attendant, or servant, a therapeutes. The recital of magic or charm over the sick person was performed by a priestly man, a primitive counterpart of the principal actor, the auxiliary ego, in the therapeutic theatre. The drama, long before it was a place for presentation of art and entertainment, was a place for therapeutics, the sick coming to it for catharsis.

fictitious (i. e. something to be imagined) just as the sexual role which the patient feels in himself remains "fictitious." Similarly, the work associates remain fictitious, as does he, himself, as a working ego. Other roles and situations which he may feel, and his interrelations with other persons in various roles, remain unenacted. The patient does not move out of himself to incorporate the roles and situations in which he has failed; so the true reality tests are never faced by him in the course of and as a *part* of the treatment. The patient may grow angry at his psychiatrist; he may feel attracted to him as a person. But he may not fight with him, nor express intense love for him. All this remains in the feelings of the patient. The silent drama does not become actual. It is not only that the patient cannot live through the roles and situations before the physician; the psychiatrist himself is limited by the situation in which he is placed. He cannot move towards the patient, get angry, or make love. He is prohibited by a self-imposed pattern of conduct. He cannot transcend his own situation and act a part even if the patient needs it badly. He cannot become "a spontaneous actor." In order to do this, he has to give up the accepted, laboriously earned theories and techniques of analytical treatment, and resort to spontaneous techniques in the treatment of mental disorders. It is this broader point of view which we are going to discuss in this paper, its greater difficulties, and its greater responsibilities for the psychiatrist.

INTER-PERSONAL AND TRIANGULAR NEUROSIS

A simple case which illustrates the new approach is a matrimonial problem which I had to treat a few years ago. A woman married for more than ten years complained of the diminishing affections of her husband who had developed a new relationship with another woman. She suffered from hysterical attacks, suicidal ideas and insomnia. Although she desired violently to win him back, she persecuted him and the other woman. She disappeared at times, but always came back home.

After the first consultation, it was evident that if her husband could give up the other woman and act towards her as he had in former years, most of the problem would be solved. I realized that it was impossible to make her resign herself and see that she had to give up her companion of so many years, her provider, and the father of her children. She did not want *adjust-*

ment to a situation she could not live through, but the *restoration* of a situation with which she had identified herself and with which she had been identified by everyone she knew since she had, as a young girl, left her parents' home—the wife of this man.

I undertook to treat this inter-personal relationship. I found her isolated and rejected. Her ego was weak. She did not want me to be too objective, to analyze her from her husband's point of view or the other woman's point of view. She wanted me to share her view, to feel with her, and to take an active part in behalf of the restoration of her former life-situation. She wanted me to identify myself with her. She felt a great deal of ease and consolation when she discovered that I, whom she assumed to be of superior strength, would aid her to achieve her aim. I took it upon myself to be and to act the part she needed, sincerely and faithfully. The physician became her *auxiliary ego*. I had given up, to an extent at least, the analytical objectivity of a psychiatrist. I became as one-sided and as narrow-minded as she was, perhaps sometimes less, sometimes more. The therapeutic advantage of the auxiliary ego consisted here in an intimate exchange of associations, feelings, and ideas, living through an adventurous project, all leading up to a plan of how to bring the husband back to her. An auxiliary ego has to be "convinced" that the patient is right. It is not sufficient that he "play" his part, he has to agree and believe that the patient is subjectively right and this is possible because every ego in its own view is right. The physician should be able to identify himself without "cheating". *Living through the subjectivity of the patient and identifying himself with all the patient's expressions as far as organic limitations allow is the function of the auxiliary ego.*

The patient asked me after a few sessions to see her husband and convince him that he should give the other woman up and come back to her. The suggestion came from her. I did not suggest it. During the treatment, the auxiliary ego is "auxiliary" to the ego of the patient. The therapeutic "leads" have to come from the patient. I met her husband, a banker, alone. He was still sharing the apartment with her. He admitted his love-affair, that he was not happy with his wife. He complained of inability to work and that he had tried, because of this conflict, to end his life. He thought his death would be the best solution. Owing to his unhappiness, he felt inferior in his ability to do his work well and feared that he might lose his position

as a consequence. He dreaded to think how many people would suffer from such an event, as so many people depended upon his ability to earn.

I presented to him the situation in which his wife was. My technique consisted in presenting as accurately as possible to him the feelings and disappointments his wife had had to go through in the course of the years—subjectively true, and for this reason one-sided and uncompromising—and elaborating still further certain suggestions she had only indicated. I proceeded not like an advocate who tries to influence an opponent for the sake of his client, and not like a laboratory scientist who presents his findings as objectively and comprehensively as he can, but like a poet who enters with his feelings and his fantasy into the *dramatis persona* of his hero, the hero being in this case, Mrs. A.

My presentation made a visible impression upon him for two reasons. On one hand, what I said contained many novelties about his wife. Apparently he knew little of what she had gone through. She rarely talked to him, and when she did, it was in moments of mutual, angry excitement. He had distorted memories of these moments or he did not remember them at all. I had, in the course of the session, to aid his memory and to bring back, piece by piece, the things he had forgotten, things she had done for him, words she had said to him, and promises he had made in return. On the other hand, it made an impression upon him that a person other than herself knew and described her mental experiences insofar as they were related to him. After a pause, he asked me whether I thought that she was mentally ill. I told him that whether it were the case or not, to discuss this was beside my function. I gave him to understand that I would not make such a diagnosis for him so that he might be able to discard his guilt with the gesture, "My wife is mentally ill." My function, I explained to him, was not to analyze his wife and disclose to her the causes of her mental difficulties so that she might find some adjustment by herself. My function also was not to observe her carefully and make a diagnosis of her personality problems which I could bring to him. On the contrary, my function was primarily neither analytic nor diagnostic, but to present to him, or as far as that goes, to any other person she might indicate, after having attained the fullest possible identification with her feelings, her actual psychological situation.

He brought up a number of problems and questions which I could not answer correctly. Therefore I returned to a new session with her. As she also continuously wanted to know more about how he thought and felt about her, or about this or that situation, *my technique consisted in having alternating sessions with her and with him, always bringing to each party an accurate and subjectivistic report of what they had to say in regard to each other.* The more I went on with the work, the more I realized that I was not treating one person or the other, but an "inter-personal" relationship, or what one may call an "inter-personal neurosis."

The work became more and more interesting as I went on. I recognized that in a truly inter-personal neurosis, the neurosis exists only as long as a controversial flow of emotions between two persons exists. In our case, Mr. and Mrs. A may or may not be neurotic individuals. Their inter-personal neurosis co-exists and is an additional status. It is methodically advisable to study it as a special unit. If Mr. A could agree in Mrs. A's needs and aspirations, she would obtain the inter-personal balance she enjoyed before the present conflict set in. This inter-personal balance, the balance between her and Mr. A, would be resurrected regardless of whatever personality difficulties, neurotic or otherwise, she might continue to have. Mr. A, in turn, would attain his inter-personal balance, or his inter-personal neurotic signs would gradually vanish if Mrs. A ceased to pursue him with her feelings of jealousy, with her appeals to his pity and to situations and obligations engaged in in the past, if she would free him from the present relationship so that he might be able to pursue openly his love for the other woman and marry her. Whatever personal difficulties he did have otherwise would of course continue to express themselves even after this inter-personal neurosis was resolved.

In the case of Mrs. A and Mr. A the technique of the auxiliary ego came to a critical moment. Just as I brought to him her hidden feelings in regard to him, and re-established, step by step, his memory in regard to past scenes they had lived together, and in regard to her present situation, I brought back to her reports from him which aided her to re-establish in herself certain moments they had lived together, and his present situation. However, I remained strictly her auxiliary ego only. A difficulty gradually developed. He sometimes tried violently to win me to his side; to make me *his* auxiliary ego, so to speak.

He hoped, then, that she would lose me as such, and that he would be able, perhaps, to be given liberty from his wife through my aid. I refused, and stopped seeing him. In turn, she had developed a fear that she might lose me, that he might be able to influence me. "He knows how to make people like him," she said, "and you may learn to like him better than me." It was, then, her wish that I should stop seeing him for the time being.

Before I continue the report of this case, some remarks regarding the auxiliary ego technique is necessary. First, it has to be understood that the process of active unification is never complete. It has its organic and its psychological limitations as well. Mrs. A once complained that I did not accurately report to her husband a certain scene which repeats itself every day at home, but that I had distorted its meaning.

Evidently I often interjected some elements of my own ego into the report coming from that part of my ego which was not yet able to dissolve into hers. Once or twice I had a similar experience with him in regard to what I had said as auxiliary to her. Besides the personality "equation" which was interfering, factors come into operation here which we have presented elsewhere in regard to the assignment of individuals to one another (3, p. 272-331). Even the best technique in the auxiliary ego can not work satisfactorily if the auxiliary ego and the ego of the patient do not click.

Another point in the technique is that it has to be constructed differently in each inter-personal relationship. Where the inter-personal neurosis is not complicated by a third person the procedure is simpler. The two persons interrelated are treated in alternating sessions until a balance of interrelationship is obtained. But in the case of Mrs. A the problem transcended two persons and after a further session had led to a deadlock between him and herself, she wished me to see the other woman. Perhaps she could be persuaded to give her husband up.

Mrs. K, a widow, cried when she came. She said she feared that some harm might come to her or to her brothers. During the last two years she had retired more and more, and rarely went to parties as she used to because of what people might think of her, rightly or wrongly—fear of networks (3, p. 256-266). She rarely met Mr. A. Letters were almost her only contact. She was afraid to meet him because her brothers were firmly opposed to any possible relationship between them. She had met Mrs. A a few times. In two sessions I answered her

questions, gave her a picture of Mrs. A's situation, recalled to her certain scenes she had had with Mrs. A, and discovered inconsistencies in regard to their respective reports of similar scenes which I tried to clarify. When I again saw Mrs. A, I brought to her a duplication of the feelings Mrs. K. had in regard to her and to her husband. She insisted that it was not love, that it could be broken. This woman had just bewitched him. Mr. A loved only her, Mrs. A, whatever he and Mrs. K might say to me. He was under this woman's spell.

The whole process had come to a stop. There were three persons, each determined to persist in his or her position. Mrs. A loved Mr. A; he disliked her in return but loved Mrs. K, who loved him in return. A further analysis showed that the relationship was still more complex. Mrs. A loved Mr. A only in some respects; she hated him in other respects. She loved him as the only sexual companion she had ever had. She loved him as the father of her children and head of the family and as her provider and supporter. Her position in the community had been based on this for years; all the people she knew and he knew regarded her in that position. She had become rigidly fixed to this position in the group. She did not want it altered. She felt that he belonged rightly to her, that he was her property. But in some respects she was indifferent to him, in regard to his work and his work relations. She hated him because he loved Mrs. K. He robbed her of some of the time and money which belonged rightly to her. She disliked him also because he showed less affection to her children. This meant, on one hand, a "loss" of prestige. On the other hand, she thought that he liked the children less because he liked her less and she feared that he might wish to have children with the other woman, the new woman whom he loved. She had five children; one boy siding with the father, four others siding with the mother. Mr. A, in return, disliked Mrs. A as a sexual companion and also as head of a family which had banded against him as an enemy. This illustrates how complex the tele³ relation between two persons such as Mr. and Mrs. A can be. It is neither positive nor nega-

³Tele is defined as a feeling process projected into space and time in which one, two, or more persons may participate. It is an experience of some real factor in the other person and not a subjective fiction. It is rather an interpersonal experience and not the affect of a single person. It is the feeling basis of intuition and insight. It grows out of person-to-person and person-to-object contacts from the birth level on and gradually develops the sense for inter-personal relationships. The tele process is considered, therefore, the chief factor in determining the position of an individual in the group.



FIG. 1. Stage of the therapeutic theatre at Beacon. There are three concentric levels to the stage with a fourth level provided by the balcony. These levels permit great scope for movement and the expression of distances as well as providing means for the indicating of differences in psychological stages of the actors.

tive. It is in some respects positive, in some respects negative, and in some others it is split. The tele relation of the triangle between Mr. A, Mrs. K, and Mrs. A was similarly complicated. It produced a clinical picture which can well be called a "triangular" neurosis.

In the course of time I became auxiliary to each member of the triangle. (See Chart I, p. 57.) The effect of the treatment was first that each partner had a full picture of each other partner; second, a full picture of their inter-personal relation, and, finally, the realization of the organic logic of the affinities which produced the triangle. The dynamics of the treatment brought about spontaneously a solution for the triangular neurosis⁴. Mr. and Mrs. A separated upon mutual agreement and he joined Mrs. K.

THE AUXILIARY EGO

The situation of the auxiliary ego has to be differentiated from its function. However much he may have become auxiliary, however deeply he may approximate the ideal of unification, the unity is never complete owing to organic and psychological limitations. The degree of organic and psychological limitations varies. The mother is to the baby with whom she is pregnant an ideal auxiliary ego. She still is that after the birth of her infant whom she nurses and for whom she cares, but the organic and psychological gap manifests itself before the infant is born. The mother is the ideal example of an instinctive auxiliary ego. Either the auxiliary ego includes the person to be aided—inclusion of the weak infant's ego by the mother ego—or it is itself included. In the latter case the auxiliary ego is weak and the person aided is strong. This relationship is often forced, as in serf-master relationship, and has the mark of exploitation.

The auxiliary ego can take good advantage of the gap between himself and the person to be aided. As only a part of his ego is spent in the process of unification, *a part of it is free to act in behalf of this ego beyond what he can do for himself*. In the case of a psychiatrist, if he should be the true "double" of the patient, his contribution would be of little value. With the unattached part of his ego, for instance when he moves from Mrs. A to her husband, he can present the situation of Mrs. A

⁴The personal problem is not considered here because of space limits.

in a more integrated and more complete way without being the object of Mr. A's emotional wrath, as Mrs. A would be. The situation of the auxiliary ego is therefore to attain unity with a person, to absorb the patient's wishes and needs and to operate in his behalf without being, however, identical with him.

Another test of the auxiliary ego is the case of the leader and his group. True leadership operates like an auxiliary ego. A good illustration is the religious leader. He concentrates on a few individuals. He moves from one individual to another, and is auxiliary to each of them until the degree of unification necessary is attained—and until, through his auxiliary function, every individual of the group has found unification with every other member. As far only as he has obtained unity with each of them separately and he has ascertained that they have become auxiliary to one another, is he a true leader. The larger the group is, the more difficult it becomes to be the auxiliary ego of each member directly. Judas is a sample of a member who for some reason remained unreached and unassimilated by Jesus. His isolation led to conflict.

The larger the chain of individuals whose balance of interrelation is disturbed, the more difficult becomes the task of the psychiatrist whom they have employed for treatment. In the case of Mrs. A, three people were involved. The controversial flow was almost entirely between the three persons. The chain of outside personal influence which ran to each of them—the psychological networks—had little significance. Their interrelational catharsis was gained without bringing the networks into the treatment. In some cases, however, the sensitivity of the patient for the controversial flow of the tele through the persons of the networks is great, and the anxieties of the patient are due to network "shock." To such a network numerous people may belong, living in different parts of the country. It means that the work of the auxiliary ego has to be enlarged farther than in the case of the A's, although it consists essentially in the same procedure—the alternate shifting of the psychiatrist from one person of the network to another for the purpose of reconstructing their relationship with the patient. The healing influence comes here from the networks, the source of the disturbance, a network catharsis.

Usually the persons belonging to a network can be easily traced. Some parts of the network are extremely lucid in the patient's mind, other parts are sketchy. The patient can be brought

to remember, piece by piece, the string of persons leading up to a key individual (charged carrier), and a key situation. The older a person is, the larger is the number of acquaintances which he has made during a life-time, and the networks may be so enormous that parts of them are not remembered. The situation may be that the class of individuals interrelated shows difficulties of such a range and character that to treat their networks would mean to treat the community as a whole. This is the case in a prison, a mental hospital or a closed community. In cases like this there are many patients to be treated at the same time, every patient being afflicted with a particular problem, and their interrelations becoming so numerous that the psychiatrist is unable to treat them directly. The technique of the auxiliary ego has either to be abandoned here, or it has to be modified to meet the new demands.

Faced by the problem of a closed community, I worked out a modification (4). The function of the psychiatrist had again to be reconsidered. First we had found him wanting because of the rigid office situation and because of his rigid role of physician. To overcome this handicap we developed the function of the auxiliary ego which we hoped would enlarge the scope and increase the flexibility of his role. Throughout all this we cherished the notion that the psychiatrist alone is the healer, that all the therapeutic tele⁵ derives from him and nowhere else is so concentrated and effective.

However, our sociometric study⁶ revealed to us that a great

⁵Positive tele occurs in any relationship between two or more persons which is produced by the affinity between some real factor in one person and some real factor in another person; negative tele, in any relationship between two or more persons involving repulsion based on some real factor in one person and some real factor in another person. If a person is attracted towards a certain person, and if this person is far from him, in another group, the moving of this person towards him produces an experience in both which is *therapeutic tele*. This is the case even if the persons do not know each other. If they are true correspondents able to fulfill a mutual need, therapeutic tele is possible.

⁶Sociometry is a study of the actual psychological structure of human society. The structure is rarely visible on the surface of social processes; it consists of complex inter-personal patterns studied by quantitative and qualitative procedures. One of the procedures used is the sociometric test which determines the affinities of individuals for one another in the various groups to which they belong. A psychological structure of inter-personal relations is disclosed by the test which often differs considerably from the relations which they officially have in the groups. On the basis of these findings a technique has been worked out which moves the individual from his maladjusted position to a position in the same group or to another group which promises to benefit him. The leads for this change are given by the individuals towards whom the individual is spontaneously attracted, or who are attracted to him. If the change of position is made on the basis of a thorough-going quantitative and structural analysis of the groups in a given community the procedure is called *sociometric assignment*.

deal of the therapeutic tele is distributed all over the community and that the question was only to make it effective and to guide it into the proper channels. The therapeutic tele is extremely selective. A patient may be sensitive for one person, insensitive to another. Viewing the community with the aid of sociometric charting, the physician saw it filled with hundreds of little psychiatrists who did not function, or functioned in the wrong direction. He, the chief psychiatrist, had to be put out of action, had to be removed from the scene; he became an auxiliary ego *at a distance*. His function reduced itself to deciding who might be the best therapeutic agent to whom, and aid in the picking of these agents. The psychiatrist in this development became as a person small and insignificant. He had lost all the insignia of all-mightiness, of personal magnetism, and status of counsel. The face-to-face physician had become a physician at a distance. He had adjusted his function to the dynamics of a tele world. His new function can well be compared with our concept of God, the original face-to-face God in whom man was included before the act of creation and who was near man during the creation. Also, He, the first and the greatest auxiliary ego, was removed from the scene, or removed himself silently from it. He moved to such a distance from our lives, perhaps, so that we might feel His interference as little as possible, the "aristotele"⁷ of the whole world.

Before we continue in the presentation of the new technique, let us recapitulate the leading points. Formerly in the treatment of patients whose mental disturbance appeared as an inter-relationship product, the other person or persons who participated in the conflict were left out of the treatment, at least from its dynamics. The patient was treated singly, and the wife, the lovers, the employer, the son or the daughter remained "fictitious" in the course of the treatment. It was assumed that if the patient were well and adjusted, he would take care of these himself without assistance. But in fact, for certain patients who come for treatment, this seems impossible. They do not come to the psychiatrist so that they may be helped in sublimation and learn to accept an ugly reality, but to meet a conflict in which another person has an essential part. This situation forced us to the first step in the new technique. The psychiatrist became an auxiliary ego. He was still the main agent in the process of

⁷Aristotele is defined as a feeling process in which numerous persons take part but which is profoundly affected by an individual who is apparently in no position of special influence or popularity.

healing. He saw a mental disease developing through the interaction of other persons. When the interrelationships involved in a social neurosis became too large, he was compelled to make use of other therapeutic agents and to remove himself from the scene to become an auxiliary ego at a distance. The new techniques, however, appeared in one respect insufficient. The auxiliary ego was always one and the same person, enacting one and the same role. Some of these patients whose warming up process⁸ was disturbed in the tests of their life reality needed a treatment-situation in which the complete operation and function of every possible relationship was lived through. What they needed was to dramatize their psyche before our eyes, not only singly, but acting with all the actual persons involved in the scenes. The nearest thing would be to arrange, after the auxiliary ego technique has prepared each of them sufficiently, that the partners in the conflict meet so that they may themselves enact certain emotional states and scenes which still remain unresolved and inexplicable. For reasons which we shall present later, such a move is full of risk and has to be considered more carefully.

MENTAL CATHARSIS

Aristotle defines catharsis in his *Poetics* as follows: "The task of the tragedy is to produce through the exercise of fear and pity liberation from such emotions." Aristotle expected the catharsis to take place in the spectator. The modern point of view as explored by this writer is in contrast to Aristotle. The mental catharsis which we expect is to take place in the actor, in the mind of the person who is suffering from the tragedy. The place of catharsis has moved from the spectators to the stage. They, the actors, are the patients; they need catharsis, liberation from the tragic conflicts, from the emotions in which they are caught. But if the actors are the subjects of the cath-

⁸"Warming up process" is a technical term deriving from discussion of spontaneity work. Spontaneity is explored through the study of spontaneous states, states or roles into which an individual throws himself suddenly. Such states are usually felt by the acting subject as completely novel experiences, frequently, in fact, there is no concrete precedent in the life history of the subject for the role portrayed. A stenographer may be called on to express anger in the role of a policeman. These spontaneous states are brought into existence by various starters. The subject puts body and mind into motion, using body attitudes and mental images which lead to the attainment of the state. This is called the *warming up process*. The warming up process can be stimulated by bodily starters (a complex physical process in which muscular contractions play a leading role), by mental starters (feelings and images in the subject which are often suggested by another person), and by psychochemical starters (artificial stimulation through alcohol, coffee, for instance).

arsis, then the whole process going on on the stage has to be reconsidered. Aristotle's tragedy was a *finished* work, finished by an author, an outsider, long before it was acted and without any relationship to the personal make-up of the actors. It has become clear that the tragedy, to be true cathartic material has to be created by the actor-patients. The actor-patients could of course become authors of their own drama, and prepare it in collaboration ahead of time. That may give us a better insight into the personal problems, but its actual presentation on the stage after weeks or months of labor, censoring and erasing of material, would add little or nothing to the mental catharsis already attained by the writing of their play.

We have to go one step further. Not only the author, but also the finished tragedy of Aristotle, has to be discarded. The actor-patients have no given product to start with. They have to develop their drama on the spur of the moment. The problems portrayed, whether they are their own personal problems or whether they are fictitious, have to be shaped as they emerge spontaneously. The possibilities of insight into and mental catharsis of the patients are then practically unlimited. In the place of Aristotle's tragedy steps the *psychodrama*.

With it the problem of mental catharsis has changed. As in a tragedy, the participants in a psychodrama may be numerous. The catharsis in one person is dependent upon the catharsis in another person. *The catharsis has to be inter-personal*. As the course of interaction between the persons is purely spontaneous, the amount of maladjustment between them will become evident as well as the amount of mental catharsis attained.

THE PSYCHODRAMA

Let us go back to the first experimental device which we constructed in the early days of stegreif-work⁹, and look at it

"*Stegreif*" is a German word difficult to translate. One possible translation is "warming up quickly;" another is "get started," another "on the spur of the moment." Therefore the term "*stegreif theater*" means a theatre which is dedicated to the spontaneous play. I chose this name for the experimental stage which I started in Vienna during 1922. The stage between 1922 and 1924 had two lines of development. The one line was purely aesthetic-dramatic, an art of the drama of the moment. It created a new form of the drama, the "living newspaper." The other line of development was psychiatric and therapeutic, the study and treatment of mental problems, through the means of the spontaneous drama. Similar demonstrations were made later under my direction in Munich and Berlin. The work was continued in New York along both lines: at the Plymouth Church, Brooklyn, and at the Mt. Sinai Hospital in 1928, at the Grosvenor Settlement House, New York, and in

from the therapeutic angle exclusively. What concerned us primarily was the momentary structure of a situation, and how to get the individual started so that he might throw himself into that momentary state. The momentary structure of a situation for spontaneous dramatic purposes, whether suggested by the director or the actor himself, consisted of an imagined situation carefully specified, of a role for the individual actor, and of a number of personified roles by other actors needed to bring the momentary structure to as clear and dramatic an experience as possible—all this to be brought into action on the spur of the moment. The momentary private life situation of the actor, his private personality, and the actual strivings and conflicts which were for him just in the process of development were less emphasized in our dramatics classes¹⁰ though they became of particular concern in the case of mental therapeutics. Then the momentary structure of the patient's life situation, the physical and mental makeup of his personality, and, most of all, how this individual operated and interacted at this time with members of his family and with various members of his network, was the information needed for diagnosis. More accurately it was needed by the patient and his auxiliary ego, the psychiatrist, in order to devise some vehicle of autonomous treatment and cure. We realized that he must have charged and tainted all persons and objects of his immediate environment with some aspect of himself, and that this must be traceable in the performance of his bodily and mental functions, in his inner tensions preliminary to these performances, in his gestures and expressions, in the words associated, and in the feelings and movements towards the persons and things with which he lived. Considering the more complex forms of social neurosis, when two, three, or more persons were to be treated simultaneously, the scenes enacted between them became a formidable pattern for treatment. Finally, all the scenes in their remote past, and all the remote networks, became important from the point of view of a general catharsis of all the people in-

Hunter College in 1929. In 1930 an "impromptu" theatre was opened in Carnegie Hall which gave a special demonstration of its technique at the Theatre Guild in 1931, in the form of a living, dramatized newspaper. From then on many other institutions have made use of this new technique. A special development was its application at the New York State Training School for Girls, Hudson, New York, to problems of social maladjustment, vocational training, and education. The therapeutic theatre at Beacon Hill, Beacon, New York, is the most recent expression of the idea.

¹⁰See footnote 9.

volved. The solution was then the resurrection of the whole psychological drama, or at least of the crucial scenes of this drama, re-enacted by the same persons in the same situations in which their association had begun. The new technique, if properly applied, aided the patient to actualize during the treatment that which he needed to let himself pass through in a procedure which was as close to his life itself as possible. He had to meet the situations in which he acted in life, to dramatize them, to meet situations which he had never faced, which he evaded and feared, but which he might have to meet squarely one day in the future. It was often necessary to magnify and elaborate certain situations which he was living through sketchily at the time or of which he had only a dim recollection. The chief point of the technique was to get the patient started, to get him warmed up so that he might throw his psyche into operation and unfold the psychodrama.

A technique of spontaneous warming up of the mental states and the situations desired was developed. The spontaneous states attained through this technique were feeling complexes and, as such, useful guides toward the gradual embodiment of roles. The technique demanded usually more than one therapeutic aid for the patient, as aids in the starting off of the patient himself and as representatives of the principal roles the situation and the patient might require. Instead of one, numerous auxiliary egos were needed. Therefore it led to this: the original auxiliary ego, the psychiatrist, remained at a distance but surrounded himself with a staff of auxiliary egos whom he co-ordinated and directed and for whom he outlined the course and the aim of psychodramatic treatment.

PSYCHODRAMATIC TREATMENT

Procedures of the treatment may be *open* or *closed*. The open treatment is carried out in the midst of the community more or less with the full knowledge and eventually with the participation of the group. Treatment for sociometric assignment¹¹ is an illustration of open treatment. The scene of treatment is for the patient the same as the scene of his living. It is the essence of sociometric treatment that the social situation of the patient and the therapeutic situation of the patient are one and the same. The surgical operation is an illustration of closed treatment. The patient is removed to the hospital and only the surgeon and

¹¹See footnote 6, page 19.

his assistants participate in the operation. Similarly, psychodramatic treatment is at times closed. The patient is taken out of his immediate environment and is placed in a situation especially constructed for his needs. The therapeutic theatre is such a situation. It is a world in miniature. It is a place in which, through psychodramatic means, all situations and roles which the world produces or may produce are enacted. The situation is closed because there is not room for spectators other than the community of auxiliary egos. Only the psychiatrist and a number of assistants who are assigned to principal roles in the course of the treatment are in the theatre.

At times the psychiatrist himself should take part in the psychodramatic operations. A staff of auxiliary egos is carefully prepared for the specific situations in which the patient is to act. The staff of therapeutic assistants should be as large as possible. It should contain members of both sexes and should vary widely in personality types. The patient at first mixes freely with all the members of the staff. He has an opportunity to become acquainted with everyone. He may be attracted to some and repelled by others. The patient is given the choice of the role and the choice of the assistant with whom as a partner he would like to act the situation out. The tele relations of the patient are thus our first guide. The patient is allowed to carry out his personal aims to the extreme. Every situation and performance is analyzed immediately after the performance in the presence of, and with the collaboration of, the patient. After a number of situations chosen by the patient have been enacted, it may become evident that the patient tries to avoid scenes and roles which are painful and unpleasant. Then the moment comes when it is necessary to tell him in what situations and in which roles he should act.

The therapeutic approach differs thus from the artistic approach in one essential factor. It is concerned with the private personality of the patient and his catharsis, and not with the role represented and its aesthetic value. However, we shall see later that the therapeutic and aesthetic domains cannot be separated forever, that they have a definite interrelationship.

When we apply psychodramatic principles to art, especially in the theatre, one notes that the presentation of the role is often interrupted by foreign elements, foreign to the role, betraying the private personality of the actor, many of his private traits and desires. The spontaneous character of psychodramatics

makes it hard, almost impossible, for the actor to keep his private ego out of the role, and he is, perhaps, continually forced to mix the private elements with role elements so skillfully that no one can tell the difference. When a role is rehearsed as in the theatre, these adjustments can be made with more consummate perfection, and a gradual elimination of all the painful, unpleasant elements incongruent to the role can take place. It is just the imperfection of the individual in psychodramatics which makes it so invaluable for the analysis of personality.

TECHNIQUE OF SELF-PRESENTATION

The simplest therapeutic technique is to let the patient start with himself; i. e., to live through, in the psychiatrist's presence, situations which are a part of his daily life, and especially to live through crucial conflicts in which he is involved. He must also enact and represent as concretely and thoroughly as possible every person near him, near to his problems, his father, his mother, his wife, or any other person in his social "atom."¹² The patient does not present "roles" in this phase of the treatment. It is not *the* father, *the* mother, *the* wife, or *the* employer; it is *his* father, *his* mother, *his* wife, *his* employer. The patient is aided by a member of the staff in getting started, but the auxiliary ego remains outside the situation. The auxiliary may be outside the enacted situation, but he is not outside the total situation itself. He is in the theatre and is one in front of whom the patient acts. The tele-relationship of the patient to his auxiliary ego has a definite bearing on the structure of the psychodramatic presentation. He watches him as he acts, he encourages him, and comments on it. At times the patient stops and explains his acts to him. The patient may act the same situation differently to a man and to a woman, to a person attracted to him and to a person indifferent to him.

The presentation can relate to situations past, present, or future. The patient is asked not merely to portray situations which he has lived, but to duplicate them completely. He is also asked to portray these situations with as much detail as possible, in collaboration with a partner if necessary. If he is, in these

¹²The social atom is the nucleus of all individuals toward whom a person is emotionally related or who are related to him at the same time. It is the smallest nucleus of an emotionally toned inter-personal pattern in the social universe. The social atom reaches as far as one's tele reaches other persons. It is therefore also called the tele range of an individual. It has an important operational function in the formation of a society.

situations, a lone character he may psychodramatize them alone. But if he has certain concrete partners in mind, his wife, his friend, or someone else, then it is desirable to have these imagined concrete partners present and work the situation out with them on the stage. If the concrete person he imagines is not available, he is asked to pick from among the persons present someone he imagines resembles the partner. If the patient has dreams he is asked to psychodramatize the dream as accurately as possible. It is desirable that the patient be prepared by the psychiatrist or by another auxiliary ego for these projected situations.

AN ILLUSTRATIVE CASE

Robert¹³ is a patient who illustrates this type of treatment. He acts himself, and he enacts every member of his immediate environment, of his social atom. He tries to show how he acts in key situations towards them, and to show how they act in key situations toward him, and then to show how they act in key situations towards one another. He attempts to live through these situations as accurately as possible. In this technique, the patient is not only himself, but also his own assistant. The patient himself becomes the auxiliary ego. He presents himself one-sidedly and subjectively, and he presents the different people of his environment one-sidedly and subjectively, not as they are. He acts his father, his mother, his sister, his wife, and any other member of his social atom in full subjective one-sidedness. The emotional currents which fill the social atom are re-enacted by him and made alive. The balances and imbalances within his social atom may then find a catharsis in his psychodrama.

Situation¹⁴: Robert enacts himself.

The patient is prepared by a member of the staff. He is told: "Portray yourself, how you acted in any recent situation which seems significant to you." He chooses to present how he acted toward his father three days earlier.

¹³Robert's difficulties are discussed on p. 37 ff.

¹⁴The material used in this paper is only a small part of the total material which each case produces.

PROCESS¹⁵*Gestures and movements*

Walks restlessly up and down from the higher to the lower level. He murmurs a few words, inarticulately. Instead of starting to act, he speaks to the psychiatrist.

Urged again to act, he warms up to a rudimentary state, moves vehemently towards one of the columns on the stage, but does not utter a word. After a pause, he begins to talk. It is in the form of a monologue, listless.

Stops suddenly. Walks off the stage with a gesture of embarrassment.

Dialogue

"I don't remember anything. I can't do it."

"Father, you should not rush, you rush yourself to death. You should try to get along with mother, etc."

Immediately afterwards, he tries to show how he had acted towards his mother recently—he exhibits a behavior similar to that described above.

ANALYSIS

The patient explained that his mind was blank, that what he did was all wrong. Whenever he began to think, the idea of another situation entered into his mind and interfered. It was a scene which he had had with his wife that morning before coming to Beacon Hill. He felt uncomfortable as he tried to portray himself as if he faced his father and his mother. He felt pain around the heart, headache, and slight perspiration.

The patient had difficulty in getting started. This was surprising because in the office interview he talked freely about his father and mother and volunteered information about his relationship to them. Apparently for him the indirect association of words and ideas came far easier than their direct psychodramatic three-dimensional presentation. The fictitious presence of father and mother was far more real when he had to portray his feelings towards them in full physical and mental action. The dread of doing it became so great that it hindered his warming-up process. Besides the dread of the psychodrama in which he had to act as if he were face-to-face with his parents, another factor was significant—the preparation for the situation. I prepared him for the situation with his father. Robert might have

¹⁵The dialogue was recorded by the use of a dictaphone. The gestures and movements accompanying the dialogue were recorded by a member of the staff in the course of the procedure.

done better work if prepared by someone else, perhaps by a person whose authority is less felt by him. The factor of clicking and of inter-personal assignment comes into bearing here. Further, the preparation of the patient was casually and rapidly done. He might have done better work after more thorough preparation. In some cases in which a complex is ready and mature for psychodramatization the patient can start himself off. Preparation by an auxiliary ego is unnecessary. But the same patient may have difficulties in starting another complex, referring to a part of his psyche which he does not like to exhibit. In general, the greater the patient's dread of psychodramatizing some function of his psyche, the greater is his need for an auxiliary ego to start him off. Some people do not like to expose their body, perhaps some parts but not other parts; some patients do not like to put certain parts of the psyche on show. They may feel that these parts are ugly and repulsive. Psychodramatics is here a counterpart of nudism. The dread of warming up may become manifest in the simplest tasks, tasks which the patient performs in life spontaneously and with great ease. He may cling to a certain spot on the platform as if he were nailed to it, unable to move and expressionless. The work of the auxiliary ego in warming up the patient must change with the type of task and with the type of mental disorder involved.

The patient, having started poorly, finished prematurely. In fact it was a pseudo-finish. He was not able to develop a full spontaneous state, and without a spontaneous state a true finish is not possible. He rushed one word after another without any feeling accompanying them. There was an excess and waste of gesture apparent and the movements from one position to another in space were not motivated.

Situation: Robert enacts his father.

The patient is prepared by a member of the staff. He is told: "Portray your own father. Feel yourself into him and show us what your father is like. Portray him in any situation which seems to you to be crucial and characteristic of him. Choose a situation which really happened and which occurred as recently as possible. Show him as he acts towards your mother, your sister, your wife, yourself, or any other significant person." Robert begins to show how his father acts toward his mother.

PROCESS

Gestures and movements

Warms up easily. He acts promptly. The acts are short, about half-a-minute to one minute long. The scenes are packed with short sentences. Sometimes he breaks a scene off abruptly, and sketches a new one which just comes to his mind and which seems to him more characteristic. When he is through with the sketch, he does not relax, but moves restlessly around in space, and as soon as he has an idea he takes position. At times he stops and says:

After the words (acting in the role of his father) "I have to make a telephone call," Robert stops playing his father and says off scene, "That is not my father, that is me." Then he starts anew.

Robert returns to the stage and enacts the following scene:

After the sentence, "Close the windows," he stops acting his father and says again off scene, "That's me again, not my father."

Dialogue

"It was not like this. I will do it again. Now I have something which is characteristic of him."

"Is the dinner ready? It is not? If I come home at seven o'clock it is not, if I come at midnight, it is not, a meal is never ready in this house. (Meal is served.) I cannot eat. I have to make a telephone call. Hello! Mr. S? Wait for me in the lobby. I will be there in a few minutes. (Begins to eat and interrupts himself. Makes another telephone call.) I will be right over. It is business. I have to run. (Leaves the meal and rushes out.)

"What a draft in this room. What a house. Close the windows. I feel the wind on my back. I am also living here, not only you. (Takes his hat and rushes out.)

"How much money do you want? Always money. You can spend it all right. I can't give you \$35.00. I don't make \$35.00 a week. Do not holler at me. I am not going to give you a cent. I will go away and not come back. What? All right. The most I can give you is \$25.00; where is my checkbook?" (Robert shows how his father walks from one room to another to find the check book and finally finds it.) Begins to write the check. Makes an error in the date. Tears it up. Takes a second check. Makes an error in the amount. Writes a third check. Makes an error in the signature. Tears it up. "Oh I can't write it. Robert! Where are you? Write a check for me. I have to go. (Runs out.)

Situation: Robert enacts his mother.

The patient is prepared by a member of the staff. Robert shows how his mother acts towards his father.

PROCESS

Gestures and movements

Warms up effectively. Not as easily as in the role of the father, not as fluently in choice of situations.

Robert stops, and does not continue. He says off scene, "Oh, that is me, that is not my mother. She acts the same way I do.—When I am getting mixed up with her."

Dialogue

"Who moved the chair to the window? The right place is the corner. Who moved the ash tray to the other side? I just put it here. You know that I can not stand it."

ANALYSIS

Robert was anxious to show how his father and mother act. He enjoyed the acting, he said, and afterward felt relieved. It was easy for him to do his father because his father has in common with him the rushing to keep an appointment. He felt so much one with his father in regard to this peculiarity that twice during the procedure he slipped into the father's position without realizing it. It was easy for him to show how his mother acts because he has with his mother a peculiarity in common, the desire to have everything in a room in its expected position. One time during the procedure he slipped into the mother's position without realizing it. He agreed that he may have chosen to show them in situations in which they revealed traits which they have in common with him. He knows the behavior and can enact it more easily. He explained that father and mother have been incompatible as long as he remembers. They hate each other. They cannot stand each other's peculiarities but he happens to have the peculiarities of both of them. So he understands both of them. But he understands his father better. He sides with him rather than with his mother. Probably this was one of the reasons why it was easier for him to start portraying his father rather than his mother. Once they had separated and had lived apart for many months. He, the oldest son, tried to harmonize them. He understood the feeling of both and he succeeded in bringing the father back home, but that did not help. They lived together, but like two enemies in the same house, a continuous source of mutual irritation.

When he enacted his father he discovered that he felt just

like his father about his mother and when he enacted his mother he discovered that in some respects he felt just as his mother did. When he portrayed his father he used the phrases which his father used; but that is as far as he went with the portrayal. It was his own voice speaking; most of the feelings and gestures were his own. The roles of his father and of himself were mixed.

He was not able to enact himself in a role in a situation with his father, but he was able to do so with his late Uncle J, the older brother of his father, censuring him—"Why don't you take your time, you rush yourself to death. Sit down and listen. A new client? Call him up and tell him that you will see him tomorrow."

TECHNIQUE OF SOLILOQUY

We have shown in the first part of this paper that the auxiliary ego is able to contribute a new element to inter-personal therapy. He determines the unspoken feelings and thoughts which two persons who are bound up in an intimate life situation have for one another, and completes the picture of the other in both minds. The problem of technique is to enable the auxiliary ego to overcome the inherent tragedy of our inter-personal world. Yet the insight which one person has about what goes on in the other person's mind is at best sketchy. We live simultaneously in different worlds which communicate only at times, and even then incompletely. The psyche is not transparent. *The full psychodrama of our interrelations does not emerge; it is buried in and between us.*

Psychodramatics has had to develop a number of techniques to bring deeper levels of our inter-personal world to expression. One of these techniques is soliloquy. It has often been used by dramatists for artistic purposes, as by Eugene O'Neil. But in psychodramatics soliloquy has a new meaning. It is used by the patient to duplicate hidden feelings and thoughts which he actually had in a situation with a partner in life. Its value lies in its truthfulness. Its aim is catharsis.

In the following psychodrama we see man and wife acting out, side by side, some feelings and thoughts which they had had in a few situations in regard to each other. They were themselves taken by surprise upon seeing and hearing what the other party had felt hitherto fully unnoticed.

Situation: Robert enacts himself in a situation with his wife, Mary, his wife, acting as his partner.

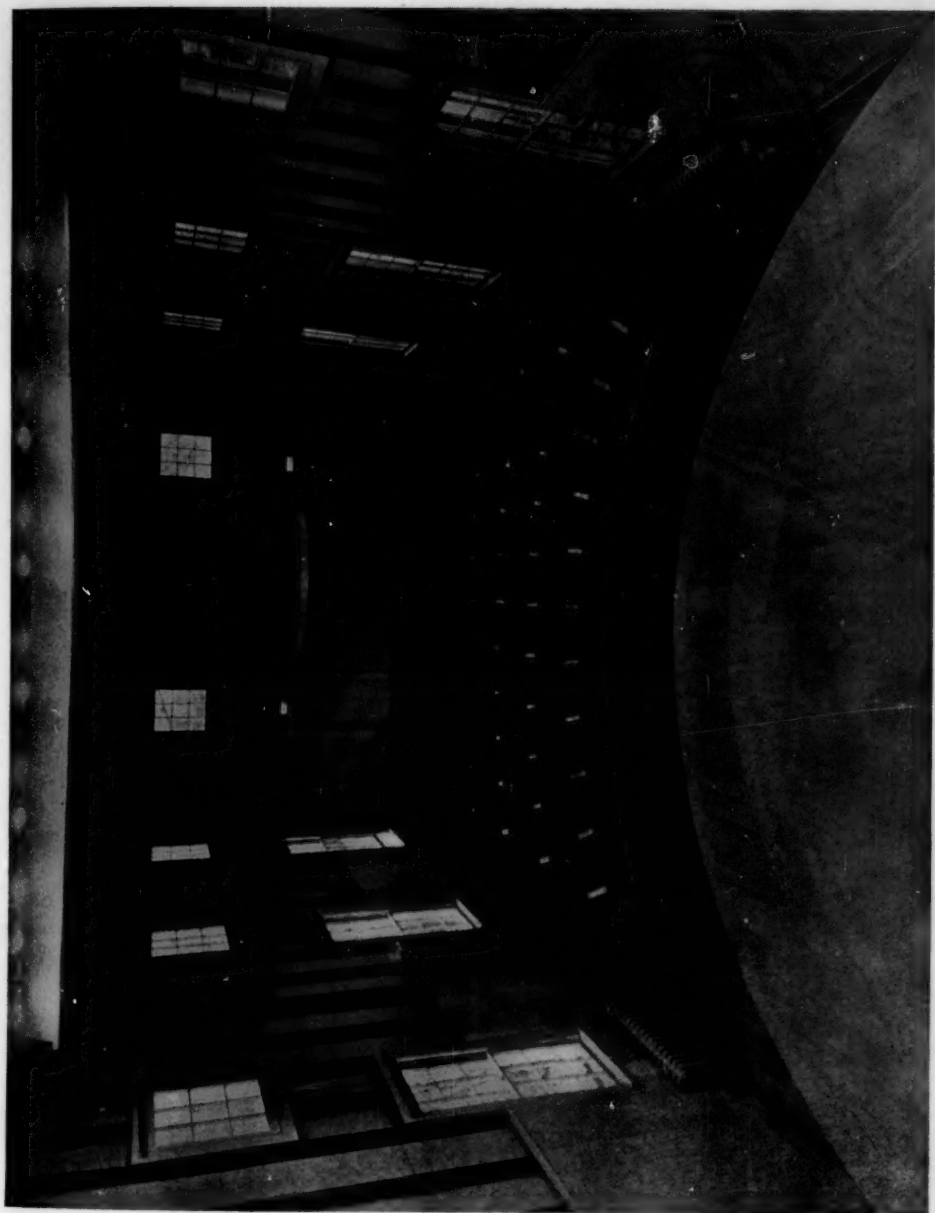


FIG. 2. Auditorium of the therapeutic theatre. Only for participants and staff workers. Opposite the stage is a small balcony from which light and color effects are thrown upon the scene by a light-improvisor who watches the scene and operates accordingly.

2

The patient and his wife are prepared by a member of the staff. Robert chooses the situation which had been on his mind in the first session and which had hindered him then—a scene with his wife on the morning he came to Beacon Hill. He and his wife are told: "Portray the scene exactly as it happened, but in addition also the feelings and thoughts which you had at that time but which you did not express. Express them now in movement and gesture. Speak them out now but in a lower voice—in soliloquy."

PROCESS

Gestures and movements

Robert and Mary, trying to reconstruct the situation, disagree in some details. He thinks that she had been with him in the living room, not doing anything. Finally they agree that he had been working in the kitchen while she was packing a suitcase. They divide the stage into several parts so that it may duplicate the spatial arrangement of their apartment in H, the living room in the center, kitchen to the right, bedroom to the back. Both warm up easily.

*Dialogue**Soliloquy*

MARY—(from bedroom)
What are you doing, Robert?

ROBERT—Cleaning up the table. I will wash the dishes.

MARY—Let me do it.

ROBERT—No, I will. Sure we have plenty of time to get to Dr. Moreno. It is not twelve o'clock. We have fully three hours time.

ROBERT—"We have to hurry. We have to hurry. I hope nobody calls me up now. Considering what might happen, little time is left. I need a shoe-shine. I need a tie. That is necessary to look right. If I rush down town to get this, little time will be left. I'm afraid we won't be on time at Dr. Moreno's. She never puts

*Gestures and movements**Dialogue**Soliloquy*

ROBERT—Every other moment takes his watch from his vest pocket, and looks at it.

Robert washes his hands, washes his face and powders it, again tense. Packs his suitcase. Mary packs her suitcase.

Mary tries to put her dress in Robert's suitcase.

Robert washes his face and powders his face and combs his hair a second time.

Telephone rings. Robert answers.

Takes his hat and coat; walks around stage on the way to the office.

MARY—Where is the suitcase?

ROBERT—Oh, I have packed everything already. Don't worry. We have plenty of time.

ROBERT—I am all packed.

MARY—Never mind.

MARY—I see that you have done all my work.

ROBERT—Oh, I just put the glass in the ice box. I took the milk bottles downstairs. I put the soap where it belongs.

ROBERT—Who is there? Four people? I will be right over.

(To Mary)—I must go to the office. I will be right back.

thing in the right place. Here she puts a glass that belongs on the top shelf. Here she puts the dishes. I have to wash them for her. Otherwise we would never get there. Hurry, hurry! She is wasting time."

MARY—He is so restless. Why didn't he let me wash the dishes?

ROBERT—She's to blame if we are too late.

ROBERT—I didn't want to leave it there for the week-end. It should not be there. It is full. It should be empty. So, I took it down.

ROBERT—I hope nobody calls me.

ROBERT—I have to be at the office at twelve. At twelve-thirty at the dentist. How am I going to take care of four people in a half hour? At 12:45 I should be home for lunch. The dentist will

Gestures and Movements

Perspires. Uses handkerchief frequently.

Dialogue

In his office—

ROBERT—What is it? Let the two people in. Well, you have to pay \$120.00. Can you afford twenty dollars a week?

ROBERT — All right. That's settled. Well, next week, Tuesday, at 10:00 is all right.

ROBERT—Who else is there? Come in. Oh, fine. Glad to meet you. Well, the conference is Monday morning at 11:00. I'll be there. Goodbye.

He enacts other scenes not presented here. Then—Rushes back to his house.

ROBERT (to Mary)—We have to hurry. Well, it is true we still have thirty minutes time. That's plenty of time, isn't it. Let's go out. Mary, come.

Soliloquy

certainly keep me longer than 15 minutes. At 1:15 I should be at the bank to draw out money. At 2:00 to meet the new attorney. Then I should get a shoe shine and buy a tie. I should stop at the gas station. The car should be gone over. It may need a new tire. I do not want to have an accident. I should start at 2:20 to be at Dr. Moreno's on time. The last train goes on Tuesday at 2:45. If I miss this train, the next train is at three. But I can't be at Dr. Moreno's until 5:15 and I should be there at 5:00. I don't see how I can get there on time if I do all the things I'm expected to do.

ROBERT—Oh, I never have any peace from these people. They always come at the wrong time. It's terrible. We have to see them. I will be late to go to Dr. Moreno's. I won't get there. Something will have to be done. It's terrible. They will have to go. I must see the doctor.

ROBERT—We must hurry.

ANALYSIS

There was a slight difficulty at the start. One tried to remind the other of something the partner had forgotten, and they corrected each other's memory easily. The actual situation had taken place about 28 hours before the soliloquy. It would appear that the nearer the situations are to the present, the more accurately are they remembered, and the more correctly can they be enacted.

The patient, Robert, and his wife Mary, were both eager to dramatize that situation. It brought them relief, particularly the soliloquy. The patient had been uneasy at first about the use of soliloquy. He thought that he would say something that would hurt his wife. He felt better when he heard that she would do her part in soliloquy. She apparently wanted him to know how she feels when he is unpleasant.

In the case of the A family, described in the first part of this paper, the inter-personal tensions and maladjustments between Mr. and Mrs. A were remedied by the psychiatrist, acting as an intermediary agent between them. Here, in the case of Robert and Mary, one acts as the auxiliary ego to the other. The psychiatrist is outside the situation acting as a preparatory agent before and as an analytical agent after the soliloquy is over.

The insistence not only upon the temporal but also upon the spatial duplication of the home scene is significant. On another occasion Robert said, "No, I could not go to bed here because our bedroom is located on the other side of the stage." A departure from his image of the structure of the original locality would break the illusion of doing it a second time.

Through the soliloquy technique the experience of the whole situation was far more clear than at the time of its occurrence. Man and wife here became acquainted with their inner selves in a most intimate way. Soliloquy provided a new psychological dimension for them.

Several times during the psychodrama we saw them stop—"No, it wasn't so,"—checking each other up, then continuing. Trends (distortion of memory) often interfere with the effort to duplicate reality. The second partner opens up the possibility of checking up the accuracy of the first and determining how much of the material is fictitious. It rarely happens that both have spontaneously the desire for the same substitution of facts, but this has to be considered at times. The desire for fictitious

substitution may be aroused by the staff members present during the psychodrama. The patient may have the desire to portray himself in a certain situation in a better or worse light than reality justifies. He may want pity or admiration, or he may want to help the psychiatrist through acting in a manner which would please his theories. Here is a point where the cooperation of a life partner (here, his wife) is a valuable check against fictitious trends.

The chief difficulties of Robert are well portrayed in this psychodrama. He lives in the permanent anxiety state of being late for an appointment. He portrays the anxiety he was in one morning before he came to Beacon Hill. The fear of being late pushes him forward. He hurries more than necessary, with the result that he often arrives far too early. The first time he came to Beacon Hill, he was two hours ahead of time. In another session he portrayed how he examined the alarm clock fifteen times to see whether it was properly set. It was first set at half-past seven; he turned it back from seven-thirty to seven, to six-thirty, to six, worrying about the time needed to permit his being punctual next day in Beacon Hill.

The soliloquy revealed that he feared incoming telephone calls which might throw his plans off, but when no one interrupted him from without he began to interfere with himself. He thought he had to go to have his shoes shined, to buy a shirt, and to have his car looked over at the gas station. His problem is a "time" anxiety. In his anxiety he inflicts pain upon himself, and, if necessary, upon others. As he wants to use allotted time most efficiently, he wastes it. One anticipated moment in the future—to be in Beacon Hill at 5:00 P. M.—extinguishes all the moments between now and then. He does not enjoy the moments in between. Indeed they annoy him. But he said during the analytical discussion: "As soon as I arrived in Beacon Hill, I was relieved and relaxed." He added that this time anxiety—or time neurosis—interferes with all his functions.

Robert perspired slightly during the psychodrama. In the original situation which he duplicated, the perspiration was more intense, he had headache and body tenseness, he felt contraction of the facial muscles, pain around the heart and the need for frequent urination.

He rushed the scenes through in a comparatively short time. His wife could hardly follow him. He did, talked, and soliloquized far more than she during the same period. His behavior

reflects that in the corresponding life situation he had been crowded, at the same time, with too many intentions to act. In consequence he tried to crowd a certain duration of time with too many acts. As soon as his anxiety that he might not be able to accomplish what he anticipated began to act upon his mind, the rush into time came to a stop or even to a regression, with the result that he was continuously crowded with unfinished acts. He feared to start anything new. Sometimes a task that would take just one minute remained undone. It is significant to note that he enumerated in soliloquy the different acts he planned to carry out in the order of their succession. Every act has its anticipated position in the time-continuum, and woe to him if he does not comply with it. His sense for the duration of performing a certain immediate task becomes neurotic, and this compels him to become neurotic in respect to a far end of his time scale; for instance, that he will have to be in Beacon Hill at 5:00 P. M. three days hence. This reduces for him the spontaneous flow of acts in duration to an extremely rigid line, an inflexible, pre-established order of successive acts. The psycho-pathology of his time function explains also how spontaneous states become overheated. A spontaneous state, to obtain full expression, has to be free from being crowded, from new acts rushing simultaneously into the act already going on. In the discussion the patient said that he feels driven to be on time regardless who the person is whom he is to meet. It apparently makes little difference whether the other person is prompt or not. It is not the result of outside pressure. It is a standard within himself. It is a moral standard. This condition has also a reflection upon his inter-personal relationships. Soon after the situation above had been psychodramatized, three of the other guests had to leave to reach a train. He was tense and perspired. He admitted that he was in an anxiety state, he feared that "they may not reach the train on time." He was inclined to want his time-complex not only for himself but as a universal standard. As he is ahead of time, he tortures others who are intimate with him (his wife) if they don't keep pace with him, and he tortures himself if he doesn't keep pace with the clock.

In the psychodrama he showed another peculiarity, the desire to have things in "the right place." He censured his wife on this point. Once he confessed that when he came to see me for the first time he felt uncomfortable because a corner of the rug was turned. A piece of paper, a nail which seemed to be out of

place irritated him. The rigidity of the time line had a counterpart in the rigidity of arrangement in the spatial manifold. Time neurosis and space neurosis in this case went together. It may be the rule. However, the patient claimed in the discussion that he was "more concerned about things being on time than about things being in their place." He wanted a pre-established order in time and in space. He did not wish to be taken by surprise. The ideal order would allow him to run his life with the least resistance.

During a combined analysis of the portrayals he gave of his father and mother and of his soliloquy, he said, "My father is always rushing like I am, and I am much like my mother, too." Then he added abruptly, "That I find everything out of place, this I have from my mother. That I rush and feel myself out of time, this I have from my father." Perhaps he tried to adjust his father and his mother in an original way in making the outstanding peculiarity of each a part of his own ego, to prove that they can live in harmony with him. But he in turn became neurotic.

An important question was raised by the patient's wife. How should she act in situations like the one above? At times the patient found relief in psychodramatizing into life itself a process of action which he couldn't have done without the training he had received in Beacon Hill. In general, as I have found in many cases, it is undesirable to psychodramatize and soliloquize, hit or miss, all thoughts and feelings into the midst of a life situation. Psychodramatics and soliloquy should be restricted as much as possible to the therapeutic theatre. The theatre is an objective setting where this extremely delicate process can be carried out under guidance. Psychodramatic technique may however be used in life itself in *key* situations; it can be used by the patient himself or one of his life partners. Then this eventually becomes a very important therapeutic result of psychodramatic work.

Robert was in a deep anxiety state one day. He was aroused by a call from the store across the street. He had already pre-arranged the tasks which he had to finish during the day and he did not see how he could also take care of the store job. On the other hand he did not want to disappoint an important new client. He worried as to how he could squeeze it in between other things. But for more than two hours he stopped doing anything. In trying to figure out how he could do the store job, he did not

do the other things either. Under ordinary circumstances he would have wasted the whole day. But reminded of the work with us he tried to warm up and to face the situation directly. He ran across to the store, talked with the man in charge. He was told that he could do the work just as well another day, after which he relaxed and went back to work.

Another time he was at a party and he was violently critical towards everything his wife said in a debate. On the way home they sat in the car in hostile silence. If he had behaved then in his usual shy manner, their relations would have been tense and unpleasant for days, and she would never have known why. But he stirred himself up and said, "Do you know why I was angry during the debate and why I was mad until now?" "I do not know why," she answered angrily. "Because during the debate when I talked to you, you never looked, listened, or answered me, but you looked, listened, and answered everybody else who was present. But I am not angry now. I realize that you talk with me every day. It is a pleasure often to exchange opinions with a new person." "But I am still angry," she said, "not only because of me, but what will these people think of you?" Under ordinary circumstances if she were angry, he would have fallen rapidly back into being angry again, but he continued to enact the experiences which went back and forth between them during the debate until they both relaxed and their anger vanished.

Another time the therapeutic action came from his wife. When he got up in the morning, though he looked calm and serene, he was full of anxiety about doing certain things on time. Under ordinary circumstances she would not have told him that she felt what was going on in him behind the smooth surface. But this time she asked him quietly when he had his first appointment. "At one o'clock," he said. "Then you have four hours' time to rest. Couldn't you call your secretary? She can let you know if an emergency arises." This were merely the verbal starter for an exchange of experiences in regard to what had happened with him when he awakened. Finally he calmed down.

Situation: Robert enacts a dream (which he had the night before in Beacon Hill). The patient is prepared by a member of the staff. He is told to soliloquize the dream in movements and in words.

PROCESS

Gestures and movements

The patient is on the balcony of the theatre.

Walks from the balcony down to the main stage.

He walks around in circles.

He walks down the steps.

Soliloquy

This is a room. I am alone. *There is a four-poster bed in it.* Someone called me downstairs.

I went down a flight of stairs. *It was a straight flight of stairs.* When I got to the bottom, I came into a restaurant. I went through the front door into the street. I didn't have my overcoat or hat on. I walked to a bright store. It was a hardware and souvenir store. I saw three people who had lived in the same tenement house with me in New York City about sixteen or seventeen years ago. I noticed Paul sitting upon a high stool which had no back, and I walked over and said to him, "Hello, you must be Paul." I saw one of the older brothers. I heard him give a cough. I said to myself, "Why that must be the brother who has tuberculosis of the throat." And then the dream ended.

Dr. Moreno had told me the Sunday before that in the event I had any dreams, I should try to recall them and mark them down. Then, while I was still dreaming, I said to myself, "Dr. Moreno said that I should mark my dreams down. I had better recall this dream so that I can mark it down." I started to record it and said, "Let's see. *First I was up in the room, and then I started down the stairs, and then I awoke, and that was the end of the dream.*"

ANALYSIS

This is not to be an analysis of this dream but a hint as to what psychodramatization can contribute to the reconstruction of dreams. The patient's actions on the stage recalled in me the poetic dramatization of dreams as in Calderon's play, "*La Vida es sueño*" (Life is a dream). He has to reach by means of auto-suggestion, a near-dream state, a posture of the body and a level of feeling which may help him to duplicate the dream hallucinations. A couch on the stage can be used for this preparatory phase before the action begins. The patient recorded the dream after waking up and presented its content to me several times. Certain portions of it, however, he added spontaneously to it as he operated in the theatre. The first thing which he added during the portrayal was the *four-poster bed* in the

room. Then as he moved down from the balcony on the stage he realized that it was a *straight stairway*, and not broken up as on our stage. It appears that the process of warming up to his role of a dreamer and the projection of his movements upon the stage may at times release emotional tensions which are not so easily remembered in retelling or in simple word association. Finally as he walked down the steps of the stage he soliloquized the *true end* of the dream. The dreamer recapitulated the course of the dream to himself. "Let's see. First I was up in the room, and then I started down the stairs."

The dream has two parts—a true dream and an inter-personal portion. He awakened during the dream, which marked the end of the true dream. The additional piece is like a soliloquy in a psychodrama. The patient stops the act for a moment and takes a look at himself and a look at me and explains how his anxiety that he may forget this dream induced him to *rehearse* it although still dreaming.

The process of starting, especially the use of bodily starters, in the warming up process, brings up the question of how reliable free word-association may be as a guide to the deeper levels of the psyche. We have seen that the position and the role the patient is in when the words emerge determine largely the *kind* of associations he will produce. The words and phrases he utters while lying on a couch in a passive state, and the words and phrases uttered when he moves his body up and down are not the same. And if there is another person, for instance, a physician whom he likes or dislikes, in the room when he associates the words and phrases, they are again greatly changed. If the other person present is his sweetheart, his father, his employer, or a mass of people, the pattern of associations is again different. Still more radical changes take place if he is not in the role of a patient but in the role of a brother, a lover, or a friend.

TECHNIQUE OF SPONTANEOUS IMPROVISATION

Spontaneous improvisation is a technique in which the patient does not enact events from his own life, but acts in fictitious (imagined) roles (5). Here an auxiliary ego has a double function. On the one hand as a starter to get the patient working in a particular role, on the other hand as a participant actor in a role which the situation demands. The patient warms up to various roles which he may have wished to represent in life but which had been "frustrated." He acts opposite various people

in symbols and roles which are either pleasurable or painful to him. These people in different roles project their own personality at him. The procedure becomes a significant test of the patient's behavior in his various inter-personal relationships however much he may try to avoid it. Many elements of his private personality enter continuously into his fictitious roles. They offer an open target for analysis.

Situation: Robert and Mary, his wife, the principal characters. The patient and his partner are prepared by a member of the staff. They are told not to portray themselves but to improvise spontaneously roles which are suggested to them. The role suggested to the patient is that of a sheriff. The role suggested to his wife is that of a shoplifter who has just been brought before the sheriff.

PROCESS

Gestures and movements
Off stage.

The patient gets up and turns half towards his wife and half towards the psychiatrist apparently undecided.

His wife remains seated, equally undecided. Both are unable to warm up to the characters. A member of the staff, aware of their hesitance, steps in.

Dialogue

ROBERT—Come, let's start.

MARY—All right.

"I think that it would be better for Ann to act as the shoplifter instead of Mary."

Robert and Ann run up the stage and give a vivid characterization of a sheriff and a shoplifter. Both warm up easily, click immediately. The dialogue flows in easy rhythm.

In a later session the following day the patient and his wife are again asked to portray the situation together, sheriff vs. shoplifter. She urges him, and this time they actually try. The essence of the portrayal, however, is that they do not warm up well. The dialogue is not convincing. She does not act like a shoplifter, but like herself, and he does not act like a sheriff, but like her husband.

Situation: "Third Degree." Robert, the district attorney. Ann, a gangstress. He puts her through the "third degree." Both warm up easily and give a convincing portrayal.

Situation: Robert as Mephistopheles in Hell. Several persons asking admission. The patient enjoys his acting.

ANALYSIS

In spontaneous improvisation, the task is in one respect the reverse of that in self-presentation. Here the subject tries to prevent his private character from interfering and from mixing with the fictitious character. The struggle, competition, and eventual collaboration of the two, the private and the fictitious character, is visible in every portrayal. The ambiguity of presentation is full of clues for the study of character. Two of the factors producing the ambiguity of a role are the private feeling of a patient for his partner, and the desire to dominate the situation and to develop not only his role but also the role of his partner. This latter mechanism produces at times a private struggle between the two partners, an ambiguity in their relationship which interferes with the roles to be presented and sometimes shapes them into a pattern which contrasts greatly with the original intention. Another factor is the private feeling of the subject for the persons watching the performance in the audience. The most important analytical task in this procedure is to separate carefully, as far as possible, between the private ego-material projected into the character of the role and the fictitious concepts of the role itself.

The patient discloses selective affinity for roles which place him in a position to torture others. Sheriff, District Attorney, and Satan are professional sadists. The therapeutic theatre gives him an artistic excuse to let himself go and perhaps the enjoyment he has in performing them and the completion of detail with which he carries them through in gestures and words, indicate the role he would like to play in life had not the pressure from without and within compelled him to reduce his sadistic trend to a neurotic sketch. He was twice negative in the portrayal of the Sheriff, with his wife acting as shoplifter, but extremely positive when acting with Ann in the same role. He selected Ann as partner for the role of a thief. As the analysis revealed, he did not choose her because he imagined her to be that type of a woman, but because he felt that she was able to embody this role effectively. A role in one person may have a tele relation to a certain role in another, although they may be indifferent to one another as private individuals. This may indicate that the patient did not want his wife to portray a vulgar and disreputable character perhaps because of the fear that she might betray some of her private ego material to him and to the people present. He may not have wanted to act in a role

towards his wife which demanded cruelty and brutality, perhaps because of the instinctive fear that he may do that in excess. On the other hand, all this discloses the importance of clicking in the warming-up process between two persons. Robert and Ann appeared convincing in the Sheriff, the District Attorney, and the Hell scenes, but they failed in a love scene together. The inter-personal clicking in respect to certain roles does not imply that they would click as easily in other roles or as private persons. The fact that individuals click well in some roles, less well in others, and that in some roles they antagonize each other, explains the complexity of tele-relationships. These come to the fore the more intimate and thorough the contact between the two persons is, as between man and wife, parent and child. The tele between the same two persons can in numerous respects be positive, in numerous respects negative, and in numerous respects showing varying degrees of positivity. The tele-relationship has to be visualized from both persons' viewpoints simultaneously. The tele-relationship is not positive if one person is able to warm up but the other person is negative in return. The complexity of configuration of tele-relationships increases the more numerous the persons are who take part in a situation, and the more varied the roles in which the individuals act or desire to act, and finally the more varied the criteria of the groups in which they participate. This is one of the points which was forced upon me during the early spontaneity work. This is one of the points which forced the early spontaneity work into sociometric study. When numerous persons acted in the development of a psychodrama, a certain person, A, was not only influenced by his face-to-face partner, B, but also by C, D, and E with whom he had not acted face-to-face, but they had acted face-to-face and influenced B who in turn influenced the part of A. We had then to distinguish between the tele functioning in the presence of two partners, and the tele which works by indirection, a distance tele effect. This work paved the way for my sociometric studies¹⁶.

"Third Degree," a situation in which the patient and Ann acted as district attorney and gangstress, respectively, disclosed

¹⁶Study of a resettlement community near Vienna, 1915-1917.

Sing Sing Prison, Ossining, New York, 1931.

Brooklyn Public School 181, Brooklyn, New York, 1932.

New York State Training School for Girls, Hudson, New York, 1932-1937.

Riverdale Country School, Riverdale, New York, 1932, 1933.

Also see references 3, 4, 5.

many points. For a few minutes Robert was fully absorbed in his role and Ann in hers. He tried to get her to confess a hold-up and she used her wits not to betray anything. From a certain point on, a private element entered from both sides into the picture. It was not only a fight between a district attorney and a criminal, but aside from this, a contest of two wills. Each persisted stubbornly in a point taken, more interested in themselves than in the form and value of the plot. This feeling colored all their gestures, arguments and words. It influenced the creative process itself. They were "in" their roles for about ten minutes. For the next ten or fifteen minutes they were merely "acting" in these roles. Each was trying to master the other. This inter-personal conflict can be explained as follows: a person rushes into a role and warms up adequately to the spontaneous state demanded by it. He is entirely absorbed by the role he acts. It is typical that afterward he remembers hardly anything of the phrases he actually spoke and the gestures he actually made unless in the effort to reproduce he falls back into the same spontaneous state.

When a person is entirely absorbed by a role, no part of his ego is free to watch it, and so to record it in his memory. He is as if in a dream. Even the functioning of his memory becomes involved in the task of developing the role. I have suggested many times to individuals who had a great selective affinity for a certain role and also for the partners with whom they worked to try to register as he went on as much as possible of the inner and outer events. The experiment had the following results: the more he tried to act and to watch himself at the same time, the more he was in danger of failing in his role. His effort was then broken up in two parts, the part which he did for me, to remember, and the part he acted in the plot. This may explain also the configuration of Robert's dream as a spontaneous effort. It is not *one* dream, but it consists of two parts, each with a different meaning. He rarely remembers the details of his acts. But upon my suggestion, he tried to remember this dream. This trying to remember is an inter-personal process, a play between myself and the patient, or better said, between myself and that *part* of the patient's ego which he has reserved for watching dreams.

Now let us return to the same mechanism in spontaneous improvisation. The less absorbed an individual is in his role, the weaker the spontaneous state, the more is that part of his ego

which watches the performance able to disturb and to disintegrate the procedure. The individual performer has therefore to be careful not to let the desire for remembering interfere too much.

The possibility of training the ego to do a double task, to do thinking and acting simultaneously is, however, within practical possibilities. I have seen numerous cases in which a subject had learned how to act a role and to register its content at the same time. However, this private part of the ego, when it becomes too active within spontaneous improvisation is responsible for numerous inter-personal disturbances. If the spontaneous state into which the subject throws himself is full and strong, it matters little. Even then he may develop an anxiety state, the anxiety of losing his presence in the role and towards the partner. The anxiety state increases in gravity if the performer has had a weak spontaneity state from the start, and if his *elan* to carry it for a sufficient length of time is limited. The feeling that one's spontaneity state is weak may discourage one from the start and force him to stop after a short run.

The feeling that the duration of a state is limited can produce a conflict which we have described as developing between Robert and Ann in "Third Degree." Both started with a strong and full state but as they came closer and closer to the end of the time permitted them, they became irritable. As soon as the spontaneity state began to wear out, to fade, so to speak, each one's private ego came in: the *wills to carry on* entered into the portrayal. It became a contest of their characters. The fading out process of the spontaneity state became evident on both sides in repetition of phrases, repetition of movements, and asides; the spontaneous state was carried artificially far beyond its natural duration.

Similar observations can be made in all emotional states in which two persons are interrelated in one common activity. In the sexual act, for instance, the mechanisms of starting and finishing the preparatory phases may reveal similar inter-personal dynamics. The sexual attitude may develop too weakly in one partner or the other. It may have a more limited duration for one of the partners than for the other. It may fade out in one or the other ahead of the psychological moment. If for the above reasons the psychological moments in both persons do not click, various forms of anxiety states are the result. These anxiety states are reflected on the momentary structure of the

inter-personal situation. These configurations, the way in which one point in the warming up of one person corresponds to the warming up of another person, can be studied objectively and with great accuracy in spontaneity work of all sorts, especially in psychodramatics.

TECHNIQUE OF SOLILOQUY—SECOND TYPE

In the first type of soliloquy the asides and the dialogue are on the same level. They are in different dimensions but they belong to the same person. They belong to the same scene which they both portray. The "open" part re-enacts the bodily and mental processes which had actually occurred in the original situation. The soliloquy part enacts the bodily and mental processes of the person at that time which he did not reveal to his partner. It is an enlargement of the self through a psychodramatic technique, and these secret mental processes flow to the person to whom they should have been communicated originally. It is here that the therapeutic effect comes in.

A second type of soliloquy has been invented in which the official act and the soliloquy are on different levels. The official act portrays a fictitious role and a fictitious situation, for instance, God in Heaven, or Mephistopheles in Hell. The soliloquy act is a reaction of the private personalities of the patient and of his partner. It portrays the unspoken, private feelings they may have in regard to themselves, to each other in their roles, to the task they are trying to produce, or to persons in the audience. The soliloquies are not enlargements but resistances to a full development of the role. It is here, however, that the therapeutic approach comes in.

Situation: The scene is in an office of a home relief bureau. The receiving officer is Robert. The client is Mary, portraying the character of a widow who has applied for relief.

PROCESS

Gestures and Movements

Mary rushes into the room with definite and quick movements, absorbed by her role. She carries this state through to the end except at one point where she soliloquizes, making a comment about her husband.

Dialogue

Soliloquy

Gestures and movements

Robert is hesitant from the start. The expression of his body is undecided.

He is unfree in his dialogue. He has sudden outbursts but no continuity. All the leads come from Mary.

*Dialogue**Soliloquy*

MARY—What do you mean no more people are permitted in. I'll get in. Oh, you're Mr. Newman, aren't you?

ROBERT—Yes, I'm Mr. Newman. How did you get in here today? No people are supposed to get in here today. We are too busy today.

MARY—Too busy! What do you care. We have no food and we are going to lose our home today. For two weeks you've been making promises. You would send an investigator. But you haven't sent anybody around.

ROBERT—I'm sorry but you will have to wait until the investigator comes. That's all there is to it. We can't take care of each individual case as it comes in here.

ROBERT—Darling, this is really getting bad. I can't get warmed up to this role. I don't know why.

MARY—I've been patient long enough. I've been waiting. I have no food. The neighbors have been supporting me. They can't help me. They're poor people too.

ROBERT—I'm sorry but I can't take care of each case that comes in here now. I've got a lot of things to do today and I can't listen to you anymore. That's all. Get out of here. That's all I can say to you.

MARY—You'd never talk that way to a client. You'd never get away with it. What you need is one year of work in a relief bureau. It would

*Gestures and Movements**Dialogue**Soliloquy*

make a better businessman out of you.

ROBERT—No ideas come to my mind. Hell, she is better than I am.

MARY—I'm not going to move from here until you get me a food ticket. My children are hungry. I've got to have food for them. I've showed you my dispossess. What did you do about it? Nothing. You sent me to court. What did they do? They gave me five more days and my day is up tomorrow and I'll be out on the street. I want a food ticket and I want the investigator to come tomorrow and speak to my landlord.

ROBERT—O. K. if you get put out on the street. Why don't you go out and get yourself a job instead of coming around here seeking relief.

ROBERT—The doctor is watching me. He thinks Mary is better than I am.

I don't care whether you get put out on the street at all. As far as I am concerned I don't give a darn. That's all there is to it. Now, get out of here. Get out of here.

MARY—Get a job? Who will take care of my three children? They have no father to take care of them. That's why I'm here. For a whole year I struggled on the insurance money he left. I waited until the last minute. This is what I get for waiting and being honest.

ROBERT—She is very well warmed up to the role, and I didn't think we were so well warmed up.

*Gestures and movements**Dialogue**Soliloquy*

ROBERT—I don't care who takes care of your three children. They can take care of themselves and so can you. Why don't you go out and get yourself a job, etc.

ANALYSIS

Robert soliloquized several times. Mary only once. Mary was better warmed up to the role. Robert fell out of it again and again. It was in these pauses that he soliloquized. A spontaneous subject who is entirely absorbed in the role is unable to soliloquize either in regard to himself or in regard to the role. It is with that part of his ego which is not swept into it, hypnotized by the role, that he can soliloquize. The weaker the role absorption by the ego, the more often can the ego soliloquize. If the ego cannot warm up to it at all, then we shall find the subject on the stage soliloquizing, making excuses for not getting into it, or suggesting different roles for himself. Robert and Mary soliloquized in several ways. They soliloquized in regard to the roles they were in, reactions which sprang up in their minds in regard to their private persons, and their reactions in regard to each other. She drove and led, he was weak, repeating the same phrases often.

The frequency of soliloquy is here a test of the intensity of the role. The more often it is interrupted, the weaker will be its unity. Many times we see the patient breaking up the flow of associations. Face and body are then out of the expression which the role demands. We see this whether he soliloquizes or not. We see from the tests that the closer to the end of the state these interruptions are, the harder it is for the patient to throw himself back into it. A start of the state sufficiently intense protects the patient against the effect which interruptions may have upon his performance. The interruptions can come either from within himself or from his partner in the act. We call these interruptions *resistances*¹⁷. They can be introduced by the psychiatrist at will into the course of action so as to train the patient not to fall out of the state while acting when resistances emerge spontaneously from himself or a partner.

The point of therapy is here not as much analysis of one or the other independently, but a careful analysis of their inter-

¹⁷Do not confuse with the psychoanalytic use of the word.

relationships with a special study of every fundamental "role" in which they act as partners. Parallel with the inter-personal analysis of the roles in which they act should go a methodical preparation of the roles they need to act in the course of their "training." Indeed it cannot be done otherwise as the analysis is fruitful only as the training proceeds. The technique of improvisation is the royal route of spontaneity training as it throws the patient in roles, situations, and worlds in which he has never lived before, in which he has to produce instantly a new role to meet the novel environment. More than therapy is provided. It is training and development of a new personality which may differ greatly from the one which he brought for treatment.

PSYCHODRAMA WITHOUT WORDS

We approach here new realms of the psychodrama, the realm of pantomime, the realm of rhythm, dance and music, and the realm of the (apparently) nonsensical. Methods for the exploration and development of a language-free, non-semantic psychopathology are needed. An illustration of such a method is the experimentation with the spontaneity states, with the warming up process, and with the body moving in space. We did not deal with word association primarily. No verbal process was expected. The body warmed up to a dance, eventually a dialogue grew out of it. Therefore we suggested non-semantic signs analogous to musical notes to represent a course of intermediate action, an inter-weaving of feeling complexes (2, p. 88-95).

In the course of treatment we recognized that non-semantic feeling complexes can be trained and that the exercise had an excellent therapeutic effect. It was not analytic in the usual sense, it was guided action. Rather than psychotherapy it was a body therapy. We began to understand also that the influence of language structure upon mental process is exaggerated, that it has not invaded the psyche without considerable resistance coming from it, that there are mental processes which grow up to maturity more or less independent from psychosemantic interaction.

FREE ASSOCIATION OF CONSONANTS AND VOWELS

An aid in the recognition of these factors is the technique of nonsensical expression. The patient is told to resist the emergence of verbal utterance and to produce sounds and words which are nonsensical. The vowels and consonants are to be

brought together into any possible combinations as they come to him spontaneously. This exercise is useful in the training of stutterers and stammerers. None of the few stutterers and stammerers whom I have treated stuttered during this test.

CASE J.

Situation: The patient is 16 years old, I. Q. 120, gifted in mathematics and physics. He has stuttered since his parents can remember, apparently since he began to speak. He is prepared about as follows: "It is a street. Move up and down. Stop. Look at me. I am coming towards you from another direction. You recognize me. Do not speak. Eliminate from your mind as well as you can the idea that you ever learned a language. Language is an invention just like any other invention. You do not have to use it if you do not want to. If you do not like it or if you do not know how to master it well, turn it off like the radio. One day we may invent some means of inter-personal communication which is simpler and perhaps more practical to use." After such a general starting off the patient is told, "You can pronounce, as we found in a previous test, every consonant and vowel, independently from one another. Only when you combine them to meaningful words of the English language are you inclined to stutter. Try, therefore, to combine them freely whether the sounds make meaningful word combinations or not."

The following four tests illustrate the procedure¹⁸:

*Without starter*¹⁹ (30 seconds) Ope ra chus to chush thro tra a cha to pe ca, chos new re ber mec tra co tu na crois tra tu tu, nuoir cris cris na ta cris, la cus cu.

Starter: Sympathy (25 seconds) Oh ma cour ta ti per pa ta, lou tu ca, la ma, ma dar, tu, tu, who cro ma, tu jou, tu jou, ho, ah, oh, ah, ohh.

Starter: Anxiety (20 seconds) Ho cru ho ho ho no no no, you no car, car ca ter tu tu, tu tu, cum tu oh no na no, oh ah, ahaa, no no no mi pa ne croi, oh long, oh long, good bi, gu ib, ohhh.

Starter: Anger (25 seconds) Ta pugh pugh pugh pers frual, fer, me sta pu a tu a tu a pugh tu a, poir ti, tu ah, cou, couc, ta la mi, cou ptugh ah.

¹⁸Recorded.

¹⁹See footnote 8, on page 21.

ANALYSIS

The above presented combinations of vowels and consonants were spontaneously produced. The patient produced them in the first instance without any intentional accompaniment of feeling. In the succeeding examples, the patient warmed up to a spontaneous state, sympathy, anxiety, and anger and used them as guides in the production of nonsensical utterances. An analysis of the two instances shows that in the tests with and without feeling the duration is about twenty to thirty seconds. After this time the subject already has difficulty in finding new vowel-consonant combinations. The duration varies from individual to individual but apparently within certain boundaries which recall our duration study of spontaneity states (2, p. 42-50). An analysis of this test material is interesting although the results given here may be entirely accidental. In the sympathy state the leading vowel was "a", and it had the lowest number of consonants. In the anxiety state, the leading vowel was "o", and it had the highest number of consonants, more than twice as many as in the sympathy state. In the anger state the leading vowel was "u", and it was second in number of consonants. The number of the vowels "e" and "i" were in all three states comparatively low. There was a preference for certain consonants; in the sympathy state, it was for instance "t", "n" in the anxiety state, and in the anger state "t" and "p". A frequent vowel-consonant combination was "ma", "ta", "ah", "sa", in all three states.

The free combination of vowels and consonants appear to change from individual to individual. It may be valuable to follow up the extent to which the combinations are influenced by the mother tongue of the patients, by their "baby" language, by mental and emotional differences. The relative value of psychotherapeutic procedures would be better understood if we could distinguish the non-semantic from the semantic causes.

THE AUXILIARY WORLD

We come, now, to consider the type of patient with whom communication of any sort is reduced to a minimum. The more sketchy and incomplete the ego, the more articulate and the more thorough has to be the aid supplied from outside by the auxiliary ego. The more disturbed the mental organization of the patient seems to be, the larger are the number of aids the auxiliary ego has to contribute and the greater is the need of his initiative. Numerous auxiliary egos may become necessary,

and, in the case of the severe and established psychosis, the task confronting the auxiliary ego is beyond their possibility of effective treatment. The milder patient, however many aids he may need for bringing himself to a more satisfactory realization, still lives within the same world with us. In the case of the more severe patient, the reality, as it is usually experienced, is replaced by delusional and hallucinated elements. The patient needs more than an auxiliary ego, he needs an *auxiliary world*.

An illustration is a patient, W, who had been classified as *dementia praecox*. Many of the reality functions were perverted. He did not seem to feel the presence of other people in the house and he was not able to do anything with them. He showed repeatedly the one desire to throw visitors including his father, mother and brothers out of the house. He masturbated frequently and played with his excretions. He ate inconsistently and destroyed certain sorts of foods. He showed one significant trend which dominated the picture. He wrote a proclamation to the world which he wanted to save. He called himself Christ. We took this as a "lead" for the treatment.

We are considering here a type of patient who cannot be reached, neither by the psychiatrist for treatment, nor by anyone, to participate in any useful occupation. He does not show signs of emotional interest in any person of his environment. He is shut in and persistently non-cooperative. The most that psychiatry and psychoanalysis has tried to accomplish is to understand these patients, to find some clues for explaining their mental experiences in the psychopathology of dreams, and the unconscious mind. But from the point of view of treatment, we had to go one step further. We translated carefully the patient's utterances, gestures, delusions and hallucinations into a poetic language as a basis to construct a poetic reality, an auxiliary world. In other words, we assumed the attitude of the poet, perhaps, still more, of the dramatist. The auxiliary egos, once acquainted with this poetic language and with the structure of his auxiliary world, would be able to act in this world, to assume roles which would fit the patient's needs, and to talk and live with him in his language and in his own universe. We regarded him so to speak as a poet who is prepossessed at the time by the creations of his own fantasy, the creation of a mad man, a King Lear or Othello, and as we wanted to enter into the drama of his mental confusion we had to learn the grammar of his logic and assume a role which fitted exactly

in his universe. The function of the auxiliary ego is to transform himself into a state of mind which enables him to produce at will a role, *if necessary similarly confused* in appearance to that which the patient experiences by compulsion.

We molded an auxiliary psychodrama²⁰ around the patient. It replaced and shaped every phase of the natural environment. The only person who had in the drama his natural role and who lived his own life was the patient. We people around him assumed a role which fitted him. After more than six months with him he showed no signs of transference, neither to the psychiatrist nor to the attendants, but he did show numerous and well developed tele-relationships. He was indifferent to certain colors such as red and yellow. His tele was positive for blue and white. This determined the clothes which we wore and the color scheme of the house. His tele for certain foods as eggs and meat was negative. It was positive for most fruits and green vegetables. The menu was carefully built around his affinities, however odd they were and however often their pattern changed. He had a tele for some persons but often only in a specific role and for aesthetic reasons, and often even for the role in a specific scene and position. For instance he liked a young attendant to kneel in a corner of the room with his head bowed. He did not like him to kneel in any other room or in any other corner. Outside of this part and position he did not show any sign of interest in the young attendant.

It was the tele complex of the patient which was from moment to moment the guide in the development of his psychodrama. He had been diagnosed as a shut-in personality, but it appears that the "shut-in" is more a clinical than a scientific category of conduct of this sort. It implies that the patient is withdrawn from reality. But as soon as we changed the reality for him and filled it with *his* psychodrama, we saw that sensations and events within it were extremely significant for him. The chart of his psychological network can hardly be drawn but we can conceive that it exists. What we call his illusions and hallucinations are probably reactions to the signals which he receives from these private networks²¹.

²⁰A more complete description of this case in which the techniques of the auxiliary world were used will be discussed in a future paper.

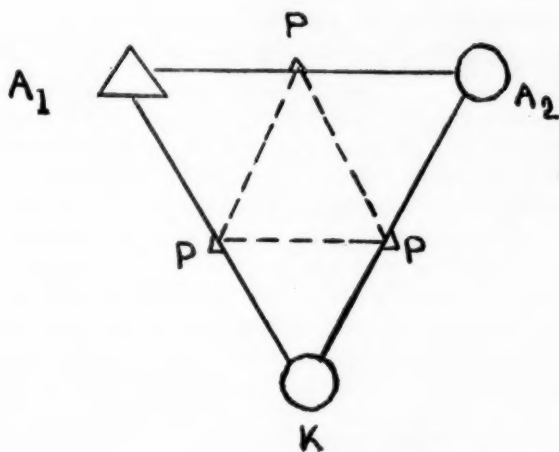
²¹The full history of the patient can not be presented here. It will be presented in the forthcoming paper referred to above.

THERAPEUTIC PROCESS

CASE OF A. (See page 11 ff)

The therapeutic process flowed through a chain of four persons, Mrs. A, Mr. A, Mrs. K, and the psychiatrist. The position of the psychiatrist in the chain was unique. The point of the procedure was not so much to produce catharsis through his therapeutic relationship with the patient as to aid in producing a catharsis between the actual partners in the conflict themselves, man, wife, and the other woman. The relationship of the patient to her auxiliary ego can well be compared with the relationship between the dramatic poet and the actor who embodies the hero of his play. The more he is able to throw himself into the role and to eliminate himself, the more he will be in the spirit of the poet. Similarly, the psychiatrist will be the more in the spirit of the patient the more he is able to eliminate himself and to play the role as he sees it only the role is here not a character outside of the poet. The patient, the poet, and the role are one. In a sense, he, the auxiliary ego, has to play

CHART I



A1—Man
A2—Wife

K—Other woman
P—Psychiatrist

Diagram of function of psychiatrist as auxiliary ego. A1, A2, and K are three patients. The solid lines represent the inter-personal relationships of the three people. P is always the same psychiatrist, in this case, acting first as auxiliary ego between A2 and A1, A2 and K, and A1 and A2, A1 and K, K and A1, and K and A2. In the performance of this function a general catharsis for the interrelationships is achieved.

the patient's part; just as a poet may be a poor actor of his own hero; she, the patient, is a poor actor of her own self. She needs an auxiliary to act her part more articulately, more completely, and more suggestively than she has been able to do. In the course of the process the moment arose when the psychiatrist had to act in the same manner in behalf of the second and the third party in the conflict, as their auxiliary ego towards the two other participants in the conflict. He is interpolated at three different intervals between them (see Chart I). There were actually three patients in the situation and not one. They started a play together. It had become a bad play. The auxiliary ego was a player who came to their rescue. The strategic turn in the therapeutic process was the moment when the auxiliary ego began to remove himself and his aid more and more from the situation, urging and fostering systematically a therapeutic relationship between the partners in the conflict themselves. In the final phase he watched the development from a distance and stepped in at times like a prompter in a play; but *they* were the actors, it was their drama, the catharsis was the result of the tele-flow between them.

CASE OF ROBERT AND MARY (*See page 27 ff*)

The treatment was different from the start. In the A case, two persons, man and wife, were growing apart. In the new case, two young people were trying to grow toward one another. The technique of the auxiliary ego is replaced by psychodramatics. Partners in a conflict find in this procedure a more objective setting for treatment. Therapeutic tele flowed through a chain of five persons, man, wife, the psychiatrist and two assistants. The time and space neurosis had been fully developed before he met his wife, but it affected and shaped their relationship and produced a secondary condition, an interrelation neurosis, overlapping the first. The treatment of the secondary condition was used as a lead for the treatment of the first. The wife was used as a therapeutic agent, at times taking the place of the psychiatrist in regard to the patient. The patient himself was used as a therapeutic agent, at times taking the place of the psychiatrist in regard to his wife. The therapeutic situation is the process occurring on the stage. The relationship to the psychiatrist is auxiliary. In case A, the psychiatrist was in a key position, as the auxiliary ego for each of the three partners independently, and at times simultaneously. In

the case of Robert and Mary, the partners are brought still closer.

The function of the auxiliary ego is further modified. Instead of being a carrier of mental news from one to another he is now merely preparing the ground for the decisive event—the psychodramatic process between the partners. The checking, reminding, and analyzing of each by the other is carried out by the actors themselves. The persons who fostered and shaped the mental disease have become the main agents in its cure. But the psychodramatic operation takes place in the pres-

CHART II

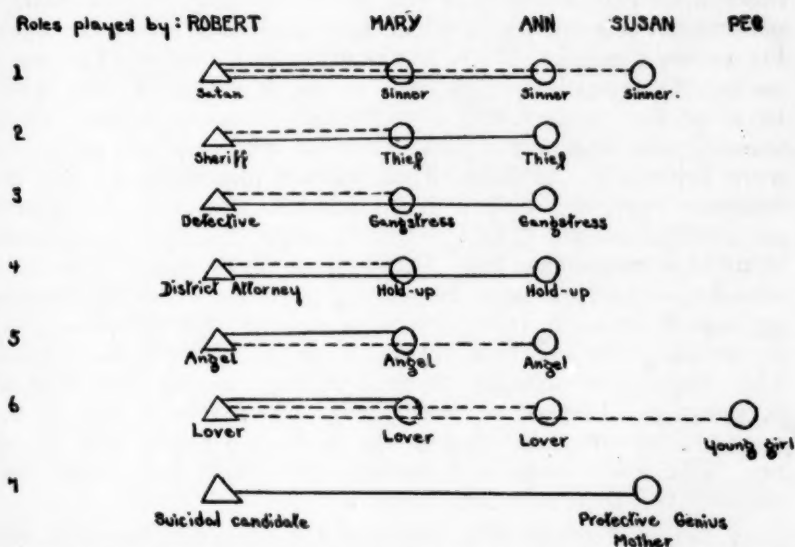


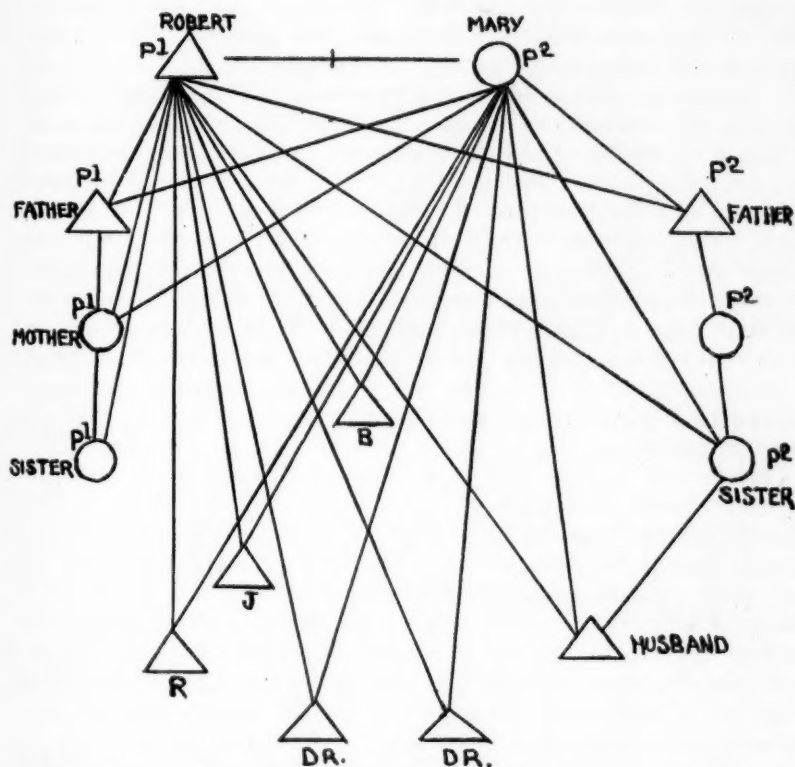
Diagram of the interrelation of people and roles in the case of Robert and Mary. In the seven different situations depicted, Robert appears variously with Mary, Ann, Susan, and Peg. The roles played by each of the five are represented in the columns directly below their names. The differences in satisfactoriness with which the situations were developed are represented by the lines between the characters: the solid line represents a positive response, a good development of the roles; the broken line represents a negative response, an unsatisfactory development of the roles. In situation 1, Robert as Satan had a positive workout of the role when the Sinner was portrayed by either Mary or Ann, but a negative workout with Susan as Sinner; in situation 4, Robert has a positive workout in the role of District Attorney with Ann as the Hold-up girl, but a negative workout with Mary in that role. These diagrams make clear the way an individual can respond differently to different individuals, and how a person's response to another person can change as situations are altered.

ence of the psychiatrist, and his two collaborators. This determines his functions as an auxiliary ego. On the one hand, he arouses and starts them, prepares them for the key situations to be portrayed; on the other hand, he leads their analysis after the event and tries to arouse and stimulate them to spontaneous reactions during and after the event. During the event Robert was acting and his wife was watching him, sympathizing or often violently disagreeing with him. At other times she was acting and he was watching her. After a psychodrama had been finished they brought out important information in the course of inter-personal analysis. They added parts which one or the other had left out in a scene. Perhaps the most important of these after-revelations was the wife's criticism as the patient persistently left out scenes which had happened during the week. He enjoyed presenting his space and time complex. He put it on exhibit repeatedly and with so much emphasis that other parts of his conduct, for instance, his sexual complex, which should have deserved at least as much attention and portrayal were neglected. At times what seemed important to him did not seem important to her. In consequence they placed emphasis on different points. The therapeutic urge of the wife appeared at times stronger than his. This became an extremely important stimulus in the treatment, for instance, the insistence on portraying sexual situations came from the wife; it did not come from an outsider (the psychiatrist) but from an insider in the conflict. This experience brought about a change in the technique of preparation. Instead of asking only him for a report of the most crucial situations during the week, we began also to ask her. The leads from both sources were then used in the construction of treatment situations.

In the case of Robert, the tele for numerous persons was studied to determine the one which promises to have the greatest therapeutic potentiality. His wife, notwithstanding their inter-personal difficulties, appeared as a good agent. This is not surprising as the assignment to one another was mutual and spontaneous. Yet there was antipathy also. It had taken them about seven years of courtship to reach the conclusion of marriage. Indeed their negative tele for one another in regard to this or that phase of their behavior proved to disclose valuable information in regard to their inter-personal dynamics. Information which neither of them could have communicated if treated independently.

Some patients are inclined to talk excessively about what has happened to them during the treatment and to apply what they have learned uncritically to others. If two patients are treated together as in the case of Robert and Mary, an additional difficulty arises. They may continue to psychodramatize their relationships and to soliloquize perpetually in the home and wherever they are. To avoid mutual excitation and irritation the patients are advised to consider the treatment in the theatre as the objective setting in which their inter-personal crisis is handled. During the first weeks they are advised to discuss as

CHART III



Telestructure (interrelationships) may have a wide range. The eleven persons charted with Robert and Mary appeared at one time or another in their psychodramatic scenes or in the analyses immediately following. These people compose the major part of the social atoms of the patients. The chart is incomplete in that the quality of the tele is not indicated.

little as possible their experiences in the theatre, and secondly, to apply psychodramatic techniques outside only under guidance. Under proper guidance this can produce an excellent therapeutic effect. (See page 39.)

Another aspect of the therapeutic process in the case of Robert is *the relationship between finishing an act and relaxation*. Robert however he may be rushed feels relaxed as soon as he has arrived at the place of destination, as soon as he is in my office, as soon as he has talked with the party whom he had tried to get on the telephone, as soon as he has ended a scene in the therapeutic theatre. Common to all these situations is a warming up to a spontaneous state which as soon as it ends turns into an anticlimax, relaxation and pause. It is a spontaneous state which moves rapidly towards an end in which the person wishes to be interrupted as little as possible.

In social situations numerous persons or events may interfere with the finishing of a task. The individual has to learn to be flexible enough to hold the spontaneity state in suspense until the interfering factor has disappeared, or be able to throw himself back into the situation. In the psychodrama, Robert found a field of action which is, from at least one point of view, preferable to the solving of problems in life; namely that the number of interferences and resistances in time and space are so few that they can be almost neglected. It is a dream-land in which painful tasks in life are finished by the gesture of a hand or by a smile. Scenes in life which endure for days are here reduced to a minute. One can move toward the end of a scene with comparative ease.

This is one reason why one feels so relaxed after psychodramatic work. Evidently the relaxation and the pleasure the patient derives from the acts come to him more easily and more quickly than in the acts in life. This is also the reason why he feels most relaxed after situations in which he has acted in a dominant role, in which he has an opportunity throughout the psychodrama to be the only standard in regard to time, space, direction, dialogue, and the moment of finish. The others have to adjust to him: to the duration of *his* state, to the change from one state to another as it pleases *him*, to *his* movement in space, to *his* change in position, to *his* turns in the dialogue, and the moment when *he* feels it desirable to end, which he chooses solely to his own self-aggrandizement.

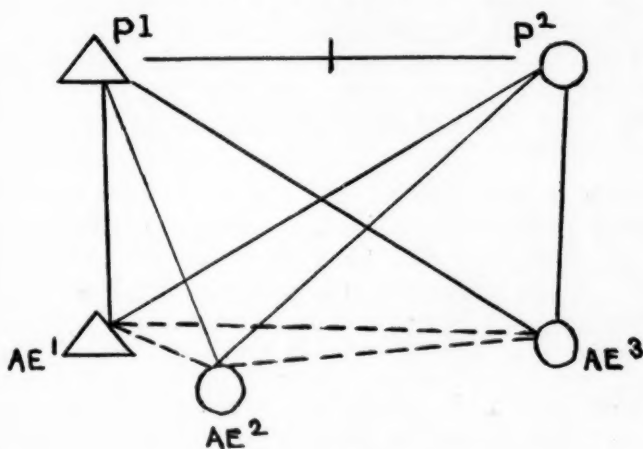
The resistance²² which we describe here is not the one within

²²See discussion of concept of resistance on p. 51.

the patient. It is between the patient and the partner or partners, it is an *inter-personal resistance*. A therapeutic measure in the case of Robert was therefore the *interpolation* of resistances. Objects, events, persons were carefully put in the way of his unlimited self-expression and self-exhibition. We have seen that he was better than the average in attempts at uninterrupted self-expression but that he often made a comparatively poor showing in contests when another aggressive ego was put as a resistance into the course of his action. The resistance had to be graduated carefully. In this form of simple spontaneity work many varieties of resistance can be invented to meet the needs of the patient.

In the case of Robert and Mary, the dynamic distribution of therapeutic tele had its greatest intensity between the partners themselves. It was apparently second in intensity between the psychiatrist and the two partners. It was third in intensity between the two partners and my collaborator. The aim of the treatment is to develop therapeutic tele in relation to as many

CHART IV
Structure of the Therapeutic Tele



P1—Man
P2—Wife

AE1—Auxiliary Ego
AE2—Auxiliary Ego
AE3—Auxiliary Ego

The straight lines indicate the direction through which the therapeutic tele flows. The main current flows between P1, P2, and AE1. The dotted lines indicate the relations between the staff members who are acting in the treatment. These relations have at times therapeutic significance.

individuals as possible who belong to the social atom of the patient, in other words to develop all individuals who are in contact with the patient and who are in a natural tele relationship with him by attraction or rejection into agents of therapeutic tele. In the case of Robert only one member of his normal social atom, the wife, is included in the treatment. Other persons who are removed from their present life-scene, their fathers, mothers, relatives, and friends are not included. Auxiliary staff members participated in as many roles as necessary for the development of the treatment (compare therapeutic chart, IV, with tele chart, III). The role of the psychiatrist is more complex than in other forms of psycho-therapy. He and his aides have to organize on the therapeutic stage a society in miniature around the patient. The patient is the poet. His actions and moods suggest the leads.

CASE J (see p. 53)

We had in Robert a type of patient who starts easily but needs difficulties in the way of the warming up process. Thus he learns how to make this process more flexible and prolong the duration of it if necessary. There are other types of patients who cannot warm up easily to a task, or at times cannot warm up at all. Instead of interpolation of resistances, they need the *intervention of appropriate starters*. Stutterers like J are an illustration of this type of patient. Starters have to be constantly applied to the needs of the patient, *on a level of feeling at which he is spontaneous*.

CASE W (see p. 55)

The level at which a patient is spontaneous is the working level of the treatment. This level can be so far removed from reality that it may not include the persons and physical objects around him. To get W started we had to create a world for him which corresponds to the level in which he lives. The world which we construct for him is a poetical, an auxiliary world. It is filled with roles and masks, with fictitious objects. As the patient improves, the roles and masks can turn more to real persons and the fictitious things more and more into actual things.

THE ROLE OF SPONTANEITY TRAINING IN PSYCHOTHERAPY

To analyze a patient, and when this is finished to leave him to his own devices, is often not sufficient for adjustment and

cure. Methods of training have been invented which develop incomplete personalities to more complete and more satisfactory functioning. The difficulty is to discover the archimedic point at which this technique can be applied effectively. We found that the archimedic point of attack is that psychological level of an individual on which he is truly spontaneous.

The level on which the patient is spontaneous may differ considerably from one function to another. It may be for instance, on an immature level for one role and on a mature level for another role. Needless to say, to discover these levels, the momentary structure of each fundamental situation in which the patient operates, has to be carefully analyzed. A technique of training does not emerge "out of the blue" but in close contact with these momentary structures and out of them. The level where the patient is susceptible to influence and to training changes from individual to individual, often from situation to situation. A technique has to be modified to meet the needs of a particular individual. The responsibility is great because a technique of training applied on the *wrong* level can be wasted effort or even harmful.

The process of exploration during psychodramatic work is already a tentative phase of training. Gradually, in accordance with the need of the patient, roles are constructed which he learns to embody and situations to which he learns to adjust. For all patients who suffer from inter-personal difficulties, as in the case of Robert, the gradual and appropriate interpolation of resistances is effective.

I remember the case of a boy whom I treated several years ago using this technique. He used to beat his mother before going to bed and in the presence of guests. Several devices of treatment failed to help the boy to overcome his fits. I cannot go into the details of the procedure here, but it may suffice to mention that the first role he portrayed was that of a prince. A member of my staff to whom he showed affinity was dressed like a queen. She acted opposite him as his mother. Otherwise every detail was portrayed as in the actual situation, a mother putting her child to bed, or a mother giving a party and her boy entering the living room to meet the guests. The questions in my mind were these: whether the boy as a prince would beat the mother if she were a queen—whether his fits toward her would be weaker, modified or absent—whether he would not have any fit because he was thinking "it is just a play." In the

first situation we *removed* every possible resistance which might come from the role, the persons acting with him and the scenes—it was a careful elimination of inter-personal resistances on the symbolic level. Gradually we began to interpolate resistances; the queen mother was ordered to be more aggressive. When prepared for the role the child was influenced to restrain his words or his actions, etc. The boy reacted favorably to the treatment after a few weeks. The symbolic level of princes and queens, royal families and heroes, was apparently the psychological level on which he was spontaneous, and therefore, we hit him on the spot where he was open to influence. Gradually we interpolated new resistances; we moved him from the most extreme symbolic level closer to the realities in which he lives. The next time his mother was merely a college professor; later she was the mayor's wife, a nurse, etc., until the moment arrived when we made the final move; his own mother began to act with him in these roles until a complete duplication of the home scenes were enacted by them. The fits disappeared.

Another method of training is the use of appropriate starters. They are important for patients who cannot easily warm up to a task or whose warming up process leads to a distorted pattern. The catatonic patient illustrates the individual who cannot warm up to a task. The stutterer illustrates the individual who warms up, but to a distorted pattern.

THE WARMING UP TECHNIQUE

Spontaneous states are brought into existence by various starters. The subject puts his body and mind into motion, using body attitudes and mental images which lead him toward attainment of that state. This is called the *warming up process*. The warming up process can be stimulated by bodily starters (a complex physical process in which muscular contractions play a leading role), by mental starters (feelings and images in the subject which are often suggested by another person), and by psychochemical starters (artificial stimulation through alcohol, for instance).

The therapeutic process in psychodramatics can not be understood without a full consideration of warming up techniques. As is well known in simple exercises, as running, swimming, or boxing, the ability of the athlete to warm up easily and undisturbed to the task desired has a great deal to do with his form and efficiency. I have studied on different occasions professional ath-

letes, their spontaneous behavior during performance situations, and found that the psycho-pathological characteristics of the warming up process described in this paper and elsewhere ("overheated" condition, undeveloped or rudimentary condition, etc.) are relevant also in physical culture.

In spontaneity work and psychodramatics the psychopathology of the warming up process has, if possible, a still greater importance than in physical culture. Every role needs for the sake of its proper performance to focus and start off with a different set of muscles which carry along during the exercise many auxiliary systems. Every time a different role is acted; e. g., the role of the aggressor, the role of the timid, the role of the cautious, the role of the self-observed, the role of the listener, the role of the lover, etc.; a different set of muscles is especially accentuated and thrown into exercise. Depending on the role enacted, more or less all the parts of the body come gradually into operation.

Through the warming up process numerous roles are brought into expression which the individual rarely or never lives through in his daily routine and which even in his night and day dreams are rarely and slightly touched. An individual in his daily routine may be limited to a small number of roles and situations but the potentialities of his personality for roles is practically infinite. We live with a small part of our personality range only, most of it remains unused and undeveloped. During the course of treatment a patient may live in hundreds of roles and situations.

I have observed, experimenting with numerous patients and non-patients, that *every warming up process which covers a small range of the personality can be absorbed and for the time being undone by any warming up process which has a wider range but which includes these parts at the same time*. I have seen this mechanism at work so often that I feel justified to consider it as a practical rule. It is on the basis of this observation that a significant therapeutic technique developed.

I told a timid stutterer to throw himself into the state of an aggressor but to produce instead of words and phrases nonsensical free combinations of vowels and consonants. He did not stutter during these states, apparently because in the *therapeutic warming up* a wider range of his personality was made mobile—it included the symptom-ridden speech-motoric appara-

tus of the patient—than in the *warming up to the symptom*. A close analysis of what happens to the patient immediately preceding and during the production of his symptoms—stammering and stuttering—disclosed that many elements enter into the formation of the symptom and his behavior which are dictated by the momentary structure of the role which he accepts dimly, which he thinks he should act and which he identifies with himself—the role of the stammerer and stutterer into which he drags and throws himself more and more, adding to it feelings of anxiety, tensions of all sorts. He acts very similarly to a person who is told by the psychiatrist to throw himself into a role at will, only that he autosuggests this role to himself.

Another patient, a woman of twenty-nine, had lost her natural voice since she was ten years old. She could talk fluently, but the sound of her voice was distorted. She could only "lisp." When she was a child, everyone used to praise her beautiful silver voice. One day in school she was asked to recite a poem but she could not speak. She had lost her voice. However, when I told her to throw herself into the role of prayer, but to use instead of words free combinations of vowels and consonants, her voice had a natural intonation. It was a surprise to her. She had not been able to produce her natural voice for many years. Another patient suffered from a drawn feeling on the left side of his face beginning with a feeling of tension around the left nostril but including gradually the left part of the mouth and nose, the lower eyelid, and the whole face. Sometimes, but very rarely, parts of the right face had a similarly drawn feeling. These sensations were easily precipitated by light shining upon his left face, a girl sitting on his left side, etc. He could free himself from these compulsory ideas if he threw his body and mind into states and roles, especially in states in which he had the role of an aggressor. When he could yell out loud and command as for instance in a role of newspaper boy or an executive, a wider range of his personality was thrown into the warming up process of the role and the muscular apparatus on the left side of his face which he had just used in the production of his symptom was also included and used in the operation of the role. Thus the obsessional contractions were absorbed by this process. After such spontaneous workouts, the symptoms disappeared entirely for many hours, and sometimes for days. This experience had an excellent therapeutic effect upon the patient and we began then to compare the spontaneous process of warm-

ing up to a role with the spontaneous process in the warming up to his symptoms. The more closely his process was analyzed, the more it became evident that the symptoms did not just "come" but were "produced" by him similar to any other spontaneous role. He acted in the role of a man who feels that he is critically watched by someone or that he might be critically watched by someone because light is shining upon his face, and that his face looks or may look distorted and ugly to this someone. This someone may be himself or some other person upon whom he wants to make a good impression. He gradually warms up to the state, and the more he lets himself go into it—like in any other spontaneous state—he adds to it numerous other symptoms as they fit into the role, feelings of anxiety, of disgust with himself, of despair that he will never get well. Every step further in the role stimulates new associations in the direction of the neurotic role, and the farther he is advanced in it, the harder it is for him to get out of it. As soon as the patient realized that the neurotic role does not "come" but that he produces it and that he can break its progress any time through simple spontaneous workouts, his condition began to improve.

During the study of momentary symptom production, a single factor stood out, the rapidity of the warming up and the rapid swing of associations and events in the course of spontaneous states. It is in correspondence with what I had found fifteen years ago during my experiments with spontaneous states. Spontaneous states are of short duration, extremely eventful, sometimes crowded with inspirations. I defined them then as *bits* of time, the smallest units of time. It is the form of time which is actually lived by an individual, not only perceived or constructed. It is methodologically useful to differentiate it from other forms, as *spontaneous time*. Spontaneous time can be considered as the structure underlying more abstract concepts of time as astronomical time, biological time (and Bergson's *duree*), psychological time, (for instance, history of an individual). The high frequency of events during spontaneous time units, the crowding with acts and intentions, may be responsible for that peculiar threshold-sensation that they are "coming" from somewhere, from a metapsychological source, from an unconscious. Would we have ever come to the concept of the unconscious if the flow of subjective time would have been equally even, of equal intensity and of equal duration in every one of its moments? Apparently it is the too high and too low frequency

rate of spontaneous time which brought about the question. I think we can expect from their analysis a better understanding of metapsychological problems.

TELE AND TRANSFERENCE

The procedure throws some light upon the distinction between transference and tele-relationship. We quote here the author of the transference concept, Professor Freud:

"A transference of feelings upon the personality of the physician . . . it was ready and prepared in the patient and it was transferred upon the physician at the occasion of the analytical treatment. (1, p. 475) . . . As far as his transference is positive, it clothes the physician with authority and it produces faith in his communication and interpretations. (1, p. 477) . . . His feelings do not originate in the present situation and they are not really deserved by the personality of the physician but they repeat what has happened to him once before in his life." (1, p. 477 our translation.)

This transference concept developed gradually out of hypnotism and suggestion. Mesmer and the old-time hypnotists thought that some fluid flowed from the psychiatrist to the patient and put him into the hypnotic state. Later when Bernheim showed that a patient can put himself into a hypnotic state through auto-suggestion, the conclusion was that all that mattered was the mind of the patient himself. He is the hypnotist and the patient in one. Thus the personality of the outside hypnotist or psychiatrist appeared negligible. Psychoanalysis studied the situation further and demonstrated that it is the patient who, in identifying the psychiatrist with certain fantasy products of his own, *projects* something upon the psychiatrist. The psychoanalyst, cognizant of this mental process in the patient, makes it the basis of treatment. Spontaneity and psychodramatic work compelled us to come to a still clearer and wider view of the physician-patient relationship. In the psychoanalytic situation there is only the one who transfers whether positive or negative, the patient. There is only one pole. The psychiatrist is considered as an objective agent, at least during the treatment, free from emotional implications of his own, merely present to analyze the material which the patient presents before him. But this only appears to be so. Perhaps because only the patient is analyzed. The psychiatrist and physician, his equip-

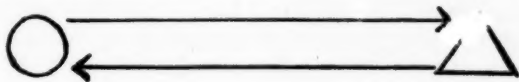
ment with a superior knowledge, has been put into the foreground and his private personality and individual makeup underlying that role have been neglected.

This can be felt in any regular office practice. The psychiatrist is more attracted to one patient than to another, and the success of his treatments are mysteriously uneven. He succeeds with a patient where another psychiatrist has failed, and fails with a patient where another psychiatrist easily succeeds. Such casual observations are strongly reenforced in the course of psychodramatic work. In the psychodrama all participants are parts of the analysis. We have observed during the work that the psychiatrist, like the patient, suffers occasionally from transference towards the patient. Mental processes in his own mind, related to the patient, have a definite effect upon his conduct during the psychodramatic work. The suggestions he makes to the patient, the role in which he acts, the analytical interpretation he gives, influence the outcome of the treatment. In other words we return partly to the position of the hypnotizer and the pre-analytic psychiatrist. Also, the psychiatrist projects fantasies of his own upon the patient. Transference develops on both poles. *Not only tele but also transference is inter-personal.* The psychiatrist is no exception to the rule. Analysis should be made from both ends of the line. Psychoanalysts have felt this problem and have tried to free the prospective practitioner of psychoanalysis from his own personal difficulties through an edu-

CHART V
Diagram of the Two Conceptions of Transference



Psychoanalytic Transference



Inter-Personal Transference

cational analysis. But the process described above can hardly disappear even after such a preparation. The prospective practitioner may have become free from transference in regard to that particular psychiatrist who analyzed him. But that does not mean that he has become free from transference in regard to any new individual he may meet in the future. He would have had to gain the armor of a saint. His armor may crack any time a new patient marches in, and the kind of complexes the patient throws at him may make a great difference in his conduct. Every new patient produces a spontaneous relationship with the psychiatrist and no educational analysis which has been carried out at one time can preview and check all the emotional difficulties emerging on the spur of the moment. In my opinion the self-analysis of the psychiatrist is not a sufficient check on this process. Therefore the first recommendation which we made in the first days of psychodramatic work was that the psychiatrist who participates in the procedure—just as well as the patient—has to be analyzed by *others* during the treatment.

A further study and analysis of a large group of normal and abnormal individuals showed that transference plays a definite but a limited part in inter-personal relations. Normal individuals show selective affinities for some persons and some persons may show selective affinities for them in return. In every type of social situation, in love, in work, and in play situations, this preference for another individual or the preference of the other individual for him is in the large majority of cases at least, not due to a symbolic transference, it has no neurotic motivations as transference, but *is due to certain realities which this other person embodies and represents*. Even when the affinity is not mutual, if the affinity is one-sided, as long as an individual is attracted towards a *reality* in this other person, the factor shaping the inter-personal relationship must be a new factor differing from the mechanism of transference, unless we stretch the meaning of this concept inappropriately beyond its original meaning. A complex of feelings which draws one person towards another and which is aroused by the *real* attributes of the other person—individual or sociometric attributes—such a process is called a *tele-relationship*. The tele-relationship is able to clarify that part in the psychiatrist which is mysterious. A psychiatrist may be relatively free from transference but he is never free from the tele process. It may be that he is naturally attracted or naturally repelled or indifferent towards certain pa-

tients because of their actual individual attributes, and the same is true of the patients. It may therefore be because of the tele factor that he is successful with some patients and unsuccessful with others. Therefore our second recommendation is that the patient should be carefully *assigned* to a psychiatrist or attendant, that not every psychiatrist will do for every patient, that there are definite tele limitations. The tele relationship is a universal factor operating in normal and abnormal situations. Inter-personal assignment opens the way for an application of psychotherapy in groups.

The social atom of an individual is seen as consisting of criss-cross affinities between him and a number of individuals and things on numerous levels of preference. The social environment in which the individual functions may be, and most often is, in utter discord with his socio-atomic structure. Then the social atom is used as a guide for techniques of person-to-person, and person-to-thing, assignment. As the individual is moved nearer to certain individuals and things, and farther away from other individuals and things, then a deep experience takes place in the participating subjects. It is the point where the tele turns therapeutic. The larger the number of participants, the more demonstrative is the commotion. The experience is in essence the same whether 28 girls of the Hudson School Community find at their table, actually sitting near them at supper, the girls they had chosen, or 135 settlers moving into a new community find as their neighbors mutual friends. "It is like starting a new life"—"I am so happy now"—and similar utterances are heard which indicate feelings which the verbal symbol can not adequately represent in the process. The fact that an affinity has an extra-verbal structure does not necessarily mean that they are remnants from an infantile level of development. It means merely that there are numerous feeling complexes for which language is a poor medium.

When a patient is attracted to a psychiatrist, two processes can take place in the patient. The one process is the development of fantasies (unconscious) which he projects upon the psychiatrist, surrounding him with a certain glamor. At the same time, another process takes place in him—that part of his ego which is not carried away by auto-suggestion feels itself into the physician. It sizes up the man across the desk and estimates intuitively what kind of man he is. These feelings into the actuali-

ties of this man, physical, mental or otherwise, partly based on information, are tele relations. If the man across the desk, for instance, is a wise and kind man, a strong character and the authority in his profession which the patient feels him to be, then this appreciation of him is not transference but an insight gained through the tele process. It is an insight into the actual makeup of the personality of the psychiatrist. We can go even further. If, during the first meeting with the patient, the psychiatrist has the feeling of his superiority and of a certain god-likeness, and, if the patient experiences this from the gestures the physician makes and from the manner of speaking, then the patient is attracted not to a fictitious but to a real psychological process going on in the physician. Therefore, what at first sight may have appeared to have been a transference on the side of the patient is a true tele projection. The patient may have subjective reasons to believe that the doctor is entitled to that almighty feeling he has about himself. The better the man, the better is his chance to be cured by him.

A similar process happens between two lovers. If the girl projects into her lover the idea that he is a hero or that he has an excellent mind, this may not be at all a fictitious construction but the experience of the role he plays toward her, the role of the great lover, of the man who is going to do great things. She is attracted to the realities of the momentary structure within him, the man before her. Even if at the start she had images of him which were unfounded, the better she becomes acquainted with him the more the transference vanishes and gives way to the tele process. The tele process is not necessarily less fantastic or less romantic than transference. The romance is based on inter-personal realities. The tele relation she has had from the start to the configuration of his mind, the rhythm of his body, the color of his hair and eyes, his social positions, etc., break forth more and more and establish the real bond between the two. Transference is a strictly subjective process within the patient or any one particular person, whereas the tele process is an *objective* system of inter-personal relations.

It appears that there are chiefly two reasons why the transference concept is uncritically used. (1) The momentary psychological structure of an individual as it emerges spontaneously and grows in the course of the treatment is not considered sufficiently by psychoanalysts. They are too much fascinated by the

idea that the feelings the patient has for the psychiatrist is an emotional hangover of past memories²³ of the latter, for instance, of an *Oedipus* complex. (2) The approach of psychoanalysis was fully justified when it entered the field about four decades ago. The status of psychology as a science has changed since then. As long as psychotherapy was carried out for a single person, it was easily possible to take transference at its face value as an unobjective projection of a patient upon his doctor. But as soon as inter-personal therapy began to study the spontaneous interactions of many persons towards each other, it became clearer, from step to step, that the transference process itself was in many respects an expression of a dream work, not of the patient this time, but of the psychiatrist.

The tele relation can be considered the general inter-personal process of which transference is a special psychopathological outgrowth. In consequence underlying every transference process projected by a patient are also complex tele relationships. Many factors which are uncritically assigned to transference are true tele projections. As long as transference is the only crux of psychotherapeutic treatment, the personality makeup of the psychiatrist does not matter. It is sufficient if he is well analyzed and highly skilled in his specialty. But since the therapeutic tele process has to be recognized as a new and important crux for treatment the situation has changed. The other personality has become extremely important, and with it in varying degree all other personalities within the social atom of the patient. The tele structure therefore suggests a proper assignment of a person to another person or to a group to get the greatest therapeutic advantage. The technique of the auxiliary ego, the technique of assignment, the psychodramatics open up new avenues of psychotherapy, especially for the infant, the child, the adolescent, the feeble-minded individual, the manic-depressive, and the schizophrenic.

²³For the evolution of tele-structure, the growth of interrelation patterns, see "Evolution of Groups", (4, p. 3-6).

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SOCIAL ATTRACTION-PATTERNS IN A RURAL VILLAGE; A PRELIMINARY REPORT

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Underlying the more obvious social structures and events there are action patterns that correspond to the atomic structure and behavior of those aspects of the world with which physical scientists concern themselves. Intelligent and facile adjustment to the physical world is recognized to be dependent upon our understanding of the atomic structure of matter. It is likewise usually conceded that the more fundamental understanding of social structures and events also depends upon various more or less subtle human relations of attraction and repulsion. This is variously referred to as the "inner essence" of society, "the *real* situation" (as contrasted with the apparent) and in other mysterious terms. These underlying processes have hitherto been dealt with in sociology chiefly by subjective and philosophical techniques variously described as "sympathetic introspection," "insight," "participant observer," and "*Verstehen*." Through these techniques many suggestive hypotheses and illuminating theories, such as those of C. H. Cooley, for example, have been advanced. The next step is to attempt to objectify, demonstrate or modify, and render more precise our descriptions of these informal and subtle social configurations and processes.

As in the physical sciences, so the underlying "basic" social processes have to be inferred from observed behavior of some kind. In a preliminary experimental attempt to determine some of the less formal association-patterns or "friendships" in a community, we undertook a complete canvass of a Vermont village of a population of about 1,000. Every family was interviewed and 94% gave the information requested. First, each family was scored according to the Chapin scale of socio-economic status¹. Secondly, and in this connection, certain additional information regarding occupation, family size, general housing condition, and kinds of reading matter was also gathered. Finally, the person interviewed, usually the housewife, was asked to name confidentially her best friends in the community. The aim was to secure the names spontaneously volun-

¹The Social Status Scale of 1933. *The Measurement of Social Status*, The University of Minnesota Press, Minneapolis.

teered in response to what appeared to be a casual inquiry at the close of an interview dealing entirely with other matters. When further interpretation of the term "friend" was requested, it was explained by the interviewer to mean the people with whom "social" visiting, for other than business or professional reasons, most frequently took place. In only 16 out of a total of 272 families visited did the person interviewed decline to give this information. We did not attempt to secure negative or repulsion patterns for fear of compromising the success of the whole study.

It is recognized, of course, that the information thus secured is merely the verbal testimony of the person interviewed, but entirely voluntarily on her part. The persons named under these conditions would probably not include illicit friendships of any kind not approved by the community or otherwise embarrassing to report. We may be said to have secured, however, a highly dependable account of the friendships of the housewives of this village, *as they were willing to have the investigator know these friendships to exist* in the fall of 1936. In short, the nuclei charted on the basis of this information represent the groupings with which the individual publicly associated herself at the time. As such they are significant even if we make no assumption whatever as to the correlation of these verbal responses with other forms of friendship behavior. Corroboration of the verbal testimony was, however, secured in part from the social columns of the local newspaper and from strategic individuals in the community. Since "friendship" groupings in this village are almost entirely on a family basis, we did not attempt to secure the same information separately for husbands of the wives interviewed or for their children. In the cases of the children, for whom independent patterns doubtless exist, a separate study is contemplated through the public schools. A few cases of husbands interviewed support the above statement as to the family basis of "friendship" groupings in a village of the type studied. But there is no need of assuming anything beyond the fact that the groupings found represent the informal friendship associations of the persons interviewed. Their formal associations in clubs, etc., had been previously studied.

The configurations and constellations found from the data gathered as reported above cannot be adequately portrayed except by diagrams of the type of sociometric charts. These, together with a full analysis, will be presented later. We sum-

marize below the main conclusions warranted from the partial analysis of the data to date.

1. The population of the village divides itself on the basis of friendship groupings into a relatively few well-defined and frequently quite exclusive constellations centering on conspicuous individuals, the "lady bountiful," the politicians, the physicians, etc. One of these was named as friend by seventeen different people, the maximum number of choices received by anyone.

2. At the opposite extreme there are isolated individuals who are designated as friends by nobody, and who designate none. Some of these have friends in the area adjoining the village. Others have such connections elsewhere, with whom they communicate through correspondence, telephone, or occasional visits. Only three cases out of the 256 successfully interviewed were entirely isolated, admitting no connections and never mentioned by anyone else in the village. Age, organic defects, and migration from other places figured in these situations. Between these extremes of popularity and isolation are all the possible combinations—mutual pairs, triangles, and chains within the major networks and sometimes connecting different networks. These remain to be analyzed².

3. The average number of choices *made* by people in different socio-economic groups did not vary significantly, but remained within a fraction of the average for the whole group namely, 2.3 choices per person, the range being between 0 and 8. The number of choices *received*, however, increased conspicuously with increasing socio-economic status.

4. As was to be expected from the preceding point, there is a tendency for people with average or lower socio-economic scores to choose friends of higher socio-economic status than themselves. If we consider only the group with socio-economic scores between 93 and 143, i. e. about 25 points immediately above and 25 points immediately below the median, we find that 60% of the choices were of friends with higher socio-economic scores. This percentage remains the same when the number of choices 25 points or more above or below the scores of each individual in this median group is considered. In short, individuals in the group located in the middle of the socio-economic

²For a preliminary analysis of two of the principal configurations found, see a forthcoming paper on "The Sociography of Some Community Relations," *American Sociological Review*, June, 1937.

nomie distribution (a little over one-third of all persons) and therefore with an equal number of people above and below themselves to choose from, directed three-fifths of their choices of friends in the direction of higher socio-economic status. People with socio-economic scores below 75 directed 83% of their choices toward friends with higher socio-economic status. People with scores above the central group (i. e. with scores above 124) directed 41% of their choices toward friends with higher scores for socio-economic status.

The primary aim of the study is to develop, if possible, an objective technology for the analysis of those underlying social processes which stand in the same relation to obvious social events as atomic behavior stands to the obvious characteristics and behavior of matter. The present hypothesis regards the community (1) from the spatial point of view, merely as a segment of the social universe. (2) from the dynamic point of view, as a system of energy operating within a field of force, in time. Energy is defined, as in any science, as *that which* produces observable manifestations of interaction. The field of force, as in any science, is merely that segment of the universe which for given purposes of study, with the sensory and symbolic apparatus we command at present, we find it convenient or relevant to define as the situation in which we are interested. Similarities and differences, attractions and repulsions (imbalances of whatever sort) within this total system determine the vigor and the direction of the flow of this energy. These differences may be of any kind—social-spatial (status), temporal (e. g. age), sexual, economic, esthetic, temperamental, developmental, or any other. These imbalances may vary in degree from intensest hate to the vaguest dislike, and from fervid love to a vague and even subconscious affinity. Their character, degree, intensity, size (or any other measure), direction, and duration determine the resulting societal configurations in a community, and hence at any given moment, the organization and social functioning of that community.

RACIAL CLEAVAGE IN NEGRO-WHITE GROUPS

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The material presented in this article is drawn from a sociometric investigation still in progress. The focus of this report is the measurement of racial cleavage in classes of colored and white elementary school children. For each race, it is necessary to know whether its members accept the other race without partiality, or form a fairly separate organization, or seek to be absorbed into the other racial group. Groups will be selected so that each race can be studied as a minority and majority. So far only groups containing white minorities have been available.

This study was undertaken using the sociometric test and interview described by Moreno (1). In the test, as adapted for the present investigation, each child chose two members of his class beside whom he might like to sit. In the individual interview given at least a day later, each child told the reasons for his selections.

The material here presented derives from a test given May 7 to 14, 1935. The interviewing occupied that week and five weeks thereafter. Additional data obtained were chronological ages, intelligence quotients, and the nationalities of the subjects. A skin-color rating of Negro children was also made.

The subjects were 950 boys and girls in a public school in Brooklyn, New York. This school had a population at the time of the test which was 75 per cent Negro. The White children were mainly of foreign parentage, one-third of them being Italian. The B, or more advanced, half of each grade was tested. The children represented nine grades or thirty classes as follows: Kindergarten, two classes; 1st through 6th grade, three classes each; 7th and 8th grades, five classes each. In Kindergarten and grades one through six, classes ranged from six per cent White to twenty-seven per cent White—that is, from two Whites, a boy and a girl, in a class of 32, through eleven Whites in a class of 41. In grades seven and eight, the school drew from a wider geographical area and the percentage of Whites was higher, ranging from twenty-two per cent to fifty-seven per cent per class.

The sample was low-average in intelligence. Mean intelligence quotients for the sixth, seventh, and eighth grades, were 97, 94 and 95 respectively.

RESULTS

Cleavage between the sexes was much greater than that between the races. A white boy, for instance, almost invariably preferred a colored boy to a white girl, even in classes containing only one white boy and white girl. In most classes, especially in those above the first grade, the lack of intersexual choice was so great that the sexes formed virtually separate groups. Boys' choices of boys and girls' choices of girls could therefore be studied in greatest detail. The present analyses are confined to choices of this type.

Group cleavage must be obtained by finding out how much each race prefers its own membership to that of the other group. The results are therefore expressed in terms of the closeness with which each group approaches one hundred per cent preference for itself. This per cent of maximum preference is here based on the number of choices given by a group to itself rather than to the other race. But it also might be based on the number of individuals preferred (since several choices can be concentrated on one individual), or on the number of mutual pairs formed between members of the same group rather than between members of different groups. A final judgment of racial cleavage would have to take into consideration all three of the above methods together with the motivations obtained in the interviews. The present results, using only one analysis, may be taken only as a first approximation to the measurement of racial cleavage.

The method of obtaining the per cent of self-preference is given below, the colored girls in class 8B2 being taken as illustration. Class 8B2 contains 11 colored boys, 7 white boys, 13 colored girls, and 3 white girls.

Each colored girl, since she cannot choose herself, chooses into a group of 11 colored boys, 7 white boys, 12 colored girls, and 3 white girls. Any choice she makes of girls is more likely to be a choice of a colored girl by a ratio of 12 to 3. Of all choices given by colored girls to girls (white or colored), eighty per cent should then go to colored girls and twenty per cent to white girls.

The colored girls in the group give 24 choices altogether. Of these, 20 choices go to girls. If the choices were made without race partiality, 4 (20%) would go to white girls and 16 (80%) to colored girls. Actually, however, the white girls receive only one choice and three choices which should have gone to them are bestowed on colored girls. A total of nineteen choices go to colored girls. The Negroes apparently prefer their own group to the other race by three choices.

In order to compare this preference with that of other groups it is necessary to express it in terms of its approximation to the maximum preference possible. In this case the maximum preference is four choices and the actual preference is seventy-five per cent of this maximum. The colored girls may therefore be said to show seventy-five per cent of the maximum withdrawal of Negroes from Whites in that class, or seventy-five per cent preference of Negroes for Negroes.

The results so expressed are given in the last two columns of Tables I and II. Since the choices being studied are intra-sexual, groups not choosing chiefly into their own sex are omitted. Other groups omitted are those containing only one white child.

The groups are arranged in the tables according to the number of white boys or white girls they contain. In each division of groups the classes progress in order of age, but in some cases there are irregularities in the age-order because of the disparity in age of the racial groups. For instance in Table II the colored boys' group in 7B2 is out of order.

The classes are arranged without regard to intelligence, since no variation of preference with intelligence has so far been found.

In certain groups preference was lacking or doubtful, since the members gave approximately the number of choices required by chance. In such cases lack of preference is indicated by a dash. Where preference was for the *other* race, a negative percentage is entered. Where groups were omitted because they did not prefer their own sex, an \times is inserted in their preference space.

Table I shows that in groups of girls with a membership of two Whites, the white girls tend to occupy a favored position. They are never rejected by the Negroes and are frequently somewhat preferred by them. The white girls invariably prefer each other. Below grade five they almost always form a mutual pair, thus showing the highest self-preference. In grades five and six, the Whites do not favor their own race so much. They are choosing less on a racial basis in spite of the fact that the attitude of the Negro group has not changed.

The first-grade group containing three white girls presents the same picture of a white group strongly preferring itself and

TABLE I
Group Preferences of Girls

Class	No. White Girls	No. Colored Girls	Pct. White Girls in Girls' Group	No. Choices from White Girls to Girls	No. Choices from Colored Girls to Girls	Avg. Age of White Girls	Avg. Age of Colored Girls	Pct. Preference of W. G. for W. G.	Pct. Preference of C. G. for C. G.
1B3	2	8	20	4	6	6-9	6-4	100	×
2B3	2	21	9	3	33	7-10	8-3	45	—
3B3	2	12	14	4	22	8-9	9-4	100	—
3B2	2	13	13	4	26	9-0	9-5	100	—
4B3	2	14	13	4	23	9-7	9-11	100	—
5B3	2	17	11	4	32	11-2	11-3	43	—
6B1	2	15	12	4	30	11-5	11-11	43	—
1B2	3	15	17	6	27	7-4	7-0	63	—
5B2	3	13	19	6	22	13-2	12-7	—100	30
8B3	3	15	17	6	30	13-10	14-4	24	67
8B2	3	13	19	6	30	15-1	15-4	23	75
KgA	5	14	26	2	19	5-7	5-9	×	—
1B1	7	14	33	11	19	6-10	7-0	—	—
2B1	6	18	25	12	26	7-10	8-0	—	—
3B1	4	21	16	7	39	8-9	8-10	—	24
4B1	4	17	19	7	33	9-11	9-7	16	50
5B1	6	18	25	11	33	11-1	10-11	44	65
6B2	5	14	26	10	27	12-6	13-2	32	32
7B4	4	14	22	8	24	13-4	13-3	54	29
7B3	5	12	29	8	22	13-11	13-11	49	71
7B5	8	12	40	16	24	13-10	14-3	31	22
7B2	5	11	31	8	19	14-6	14-2	48	67
8B5	7	11	39	14	20	14-9	14-5	34	63
8B4	9	8	53	17	16	14-5	15-0	64	77
7B1	11	10	52	21	19	12-9	13-1	54	72
8B1	15	11	58	30	22	13-8	13-9	70	—

occupying a favorable position with the Negroes. In the three older classes, the Whites show a decrease in self-preference. In class 5B2, the white girls even choose Negroes exclusively.

Because of the small number of choices given out, the Whites in minorities of two cannot show any preference between zero and forty-three per cent. Therefore one can not conclude that the girls in 8B3 and 8B2 show less preference than those in 5B3 and 6B1. But it can be stated that girls in minorities of three show no more preference than those in groups of two, and that they show less self-preference than most larger minorities of the same age.

TABLE II
Group Preferences of Boys

Class	No. White Boys	No. Colored Boys	Pct. of White Boys in Boys' Group	No. Choices from White Boys to Boys	No. Choices from Colored Boys to Boys	Avg. Age of White Boys	Avg. Age of Colored Boys	Pct. Preference of W. B. for W. B.	Pct. Preference of C. B. for C. B.
KgB	2	17	11	3	9	5-2	5-6	28	—
1B2	2	18	10	2	21	7-7	7-1	—	50
2B2	2	17	11	4	25	8-2	8-1	—	63
5B2	2	15	12	4	25	13-6	13-0	—	100
KgA	3	14	18	4	16	5-8	5-10	—	-15
3B3	3	16	16	6	27	8-10	9-4	62	12
1B1	4	15	21	3	21	6-7	7-0	×	-9
2B1	5	15	25	3	23	7-11	8-0	—	100
2B3	6	13	32	9	18	8-1	8-7	—	-17
3B1	7	10	41	11	12	8-10	8-8	11	—
4B1	6	15	29	8	28	9-10	10-0	18	30
4B3	4	16	20	6	26	10-3	10-7	40	24
5B1	5	13	28	10	26	10-10	10-10	61	59
5B3	6	13	32	10	24	11-1	11-3	72	-7
6B1	8	14	36	16	28	11-6	12-0	81	-13
6B3	5	14	26	10	25	12-3	12-8	46	50
7B1	6	14	30	12	28	13-3	12-11	-69	56
6B2	4	11	27	7	20	14-2	13-2	46	50
7B4	4	14	22	7	22	13-6	13-9	30	63
8B3	9	10	47	17	17	14-5	14-3	27	64
8B4	9	12	43	13	17	14-8	14-11	16	73
7B2	7	11	39	14	16	15-4	13-10	100	10
8B2	7	11	39	13	17	15-9	16-5	17	15
8B1	8	7	53	16	14	13-4	13-11	-24	12
7B5	9	8	53	17	11	13-11	15-2	42	45
7B3	10	10	50	19	16	12-11	13-6	70	64
8B5	10	8	56	20	11	14-8	14-3	51	—

The Negroes form a racial group for the first time in 5B2 and thereafter withdraw increasingly from white girls. Their self-preference is as large as that of other Negro majorities and is much greater than that of the Whites.

When the girls' group contains four to eight Whites, there is an age-increase of self-preference in both races. In kindergarten the Whites are chiefly interested in boys, but the Negroes prefer girls and favor white girls slightly. In grades one and two there is no group cleavage along racial lines. Withdrawal on the part of the Negroes begins in grade three, the Whites still showing no group partiality. In grade four the Whites commence their withdrawal and the Negroes increase theirs, and in the fifth grade, cleavage progresses still further. From that point on there is considerable cleavage, showing no age-increase and no unmistakable variation with percentage composition of the class. Cleavage is unequal. That is, the Negroes in almost every case band together more closely than do the Whites.

In the final three groups of Table I, white girls are slightly in the majority and they show unusually high self-preference in all three classes. In the first two groups the Negroes also show high preference, and the cleavage is therefore greater than ever before. But in 8B1 where the Whites are most in the majority, the Negroes suddenly lose all self-preference.

Table II begins with groups containing two white boys. The two Whites never form a mutual pair and in only one class does one boy choose the other. The other two classes choose entirely into the colored group, as they should according to chance. At the same time, the colored boys show increasing withdrawal until they ignore the white boys entirely in 5B2.

In the kindergarten group containing three white boys, the Whites have no partiality, and the Negroes somewhat prefer the Whites. In the third grade white boys show unusually high self-preference, but the Negroes separate only a little as in other Negro majorities of that age (2B3, 3B1).

Thus in these groups with two or three white members, the white boys sometimes show the unusually high self-preference characteristic of white girls at these concentrations. But, unlike the girls, they entirely fail to receive any special consideration from the Negro group.

In boys' groups containing minorities of four to nine Whites, the Negroes do not begin any consistent self-preference until

grade four. White boys first form a racial group in grade three. As among girls there is a rapid increase of racial cleavage terminating at grade five. After this period of increasing cleavage, the boys show much inequality of cleavage. Frequently one race is closely banded together and the other either fails to withdraw very much or prefers the well unified group. This type of structure usually appears in classes at least thirty per cent White, equal cleavage being more common in classes with a lower white membership. Either a colored or white group may be the popular one. In 5B3, 6B1, and 7B2, white groups are favored. In 7B1, 7B4, 8B3, and 8B4, Negroes are favored. The formation of these popular groups begins at age eleven.

The oldest boys' group, 8B2, shows a distinct drop in cleavage. This cannot yet be interpreted with certainty.

In the last four classes of Table II, white boys equal or exceed the colored membership in numbers. But there is no distinguishable change in the trend of preference. Cleavage and uniracial popularity occurs as before.

DISCUSSION

It is perhaps not too early to suggest an explanation for these findings. The cleavage of a class along racial lines may be thought of as dependent not only on race consciousness, but on the discrimination exercised in choosing companions and on the prestige attainable by a given racial group.

As children grow older, their requirements in regard to friends apparently become more complex and exacting. This more complicated basis of friendship involves a greater sense of intimacy between members of the same race. Therefore it produces an age-decrease of inter-racial choice in groups at first tending to choose without any racial basis. These groups include all Negro majorities and all White minorities of four or more.

Another aspect of the more complex basis for friendship is a more critical attitude toward all acquaintances so that a child may prefer a particularly congenial individual of a different race to any member of his own group. The development of this attitude especially affects White minorities of two or three children. The conspicuousness of two or three Whites in an otherwise colored group seems to produce unusual racial consciousness even in young white children, and results in choice of Whites simply because they are white. The more critical attitude of

older children causes a reduction of such simple undiscriminating intra-racial choices.

Thus growth of social discrimination produces opposite effects on inter-racial choice, at different levels of race consciousness.

The more critical attitude of older children would also help to explain variations in cleavage found above grade five. Variations in the make-up of the class in terms of age, nationality, skin-color, etc., might easily affect the congeniality of members of the same race and therefore the need of those members to choose companions from the rest of the class.

The congeniality of a group would also be affected by its size. As the group became larger, it would offer an individual member more chances of finding a suitable companion within its limits. This effect of size appears in the minorities of white girls. In the upper four grades, white girls usually form a less separate group than do the colored girls. Minorities of three members separate least from the Negroes. Most withdrawn are white girls in the largest concentrations, close to fifty per cent.

The other important factor in group formation is the prestige which a group may develop. This prestige is dependent on the size of the group as well as the attractiveness of its members.

It has already been mentioned that white minorities of two or three girls, are conspicuous in a group otherwise colored. This alone seems to make them attractive to each other and to the colored girls. Even in grades five and six, these white groups maintain prestige with the Negroes. The white girls again attain a favored position when they exceed the Negroes in numerical strength.

White boys in small minorities do not enjoy the prestige accorded the girls. But in groups at least thirty per cent White, prestige structures appear prominently. The Whites must evidently have a certain numerical strength before they can compete for leadership with the colored boys. In groups of this composition, between the ages of eleven and sixteen, one race is very closely withdrawn, while the other either separates only a little or prefers the more unified group. Apparently the race containing the most attractive boys bands together around them and achieves class dominance. This attracts choices from members of the other race, who would like to be identified with the leading group.

The foregoing explanation of racial group formation is to be checked by detailed analysis of the structure distinguishing each class, by a study of motivations for choice, and by sociometric tests of Negro minorities.

CONCLUSIONS

1. There is, in elementary school classes of colored and white children containing minorities of four or more White, an increase of racial cleavage with age. Separation into racial groups is usually absent until grade three. Cleavage reaches its highest point in grade five. From grade five on girls' groups show a variable and unequal cleavage, colored girls withdrawing more than do Whites. Boys develop either equal cleavage or structures in which one group has a great deal more prestige than the other. The popular group may be either colored or white.

2. Withdrawal of one race is not necessarily associated with equal withdrawal of the other. Thus there is never complete cleavage. Even when one group chooses itself exclusively, the other race does not completely separate from it.

3. In elementary school classes of colored and white children, the white minorities usually do not seek to become members of the majority. They form a separate group, as do the members of the majority.

4. Group preferences are affected by percentage composition in the following ways:

a. In very small minority groups of two or three Whites, the self-preference of white children tends to be unusually high below grade five and unusually low above grade five. In such small minorities even first grade white children form racial groups.

b. When white girls reach a slight majority they show increased preference for their own group.

c. Groups of Negro girls below age twelve do not separate racially from two Whites, and frequently prefer them.

d. When white girls reach a concentration of fifty-eight per cent, the Negroes in the group may experience a considerable loss of self-preference. Evidence on this point is, however, still inconclusive.

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AN EXPERIMENTAL APPROACH TO THE STUDY OF ATTITUDES

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The experiment reported in this paper was carried out in the conviction that we need not leave the main field of experimental psychology (as many psychologists do today) to find concepts adequate for the psychology of attitudes. In the work of the Wurzburg psychologists, we find important experimental beginnings. Here it was found that that aspect of the stimulus field is especially observed which the subject is set to observe. Unfortunately the implications of this experimental work and subsequent investigations which it inspired have not been made an integral part of social psychology.

Taking the stimulus side of the problem into consideration, it will be safe to say this: indefinite, unstructured fields of stimulation are especially useful in getting positive results in experiments dealing with the influence of suggestion and kindred social influence. In such cases the stimulus field more easily yields itself to organization in different ways. In this paper our aim is to show how an indefinite stimulus field can be organized or determined by one kind of social influence.

In our opinion autokinetic movement is a very convenient phenomenon which can be utilized to investigate in the laboratory various kinds of social influence. Experimentally it is easy to produce autokinetic movements. In a completely dark room a single point of light which is fixed at some distance from us and which is physically stationary cannot be localized at a fixed point in space. It moves, and may move in any direction, because there are no other visible points or objects in relation to which it can be localized.

The present experiment is an extension of the results of the previous experiments with the autokinetic movement. It will suffice in this paper to give the main findings of the previous experiments. The technique and procedure are described elsewhere (1, 2). For our present purposes the main findings may be summarized in a few sentences:

When an individual perceives autokinetic movement which lacks an objective standard of comparison, and is asked during

repeated stimulation to report in terms of the extent of movement, he subjectively establishes a range of extent and a point (a standard or norm) within that range which is peculiar to himself, differing from the range and point (standard or norm) established by other individuals.

When individuals face the same unstable, unstructured situation as members of a group *for the first time*, a range and a norm (standard) within that range are established which are peculiar to the group. When a member of a group faces the same situation subsequently *alone*, after once the range and norm of his group have been established, he perceives the situation in terms of the range and norm that he brings from the group situation.

The ranges and norms established in the above cases are not prescribed arbitrarily by the experimenter or by any other agent. They are formed in the course of the experimental period and may vary from individual to individual, or from group to group, within certain limits.

Our concern being the study of social influence, we may go further and put the question: can we experimentally make the subject adopt a prescribed range and norm directed by specific social influences?

Different kinds of social influences may be experimentally utilized to define certain prescribed ranges and norms. Among many possible ones we took the following: (a) The influence of group situations on the individual as a member of the group. We have already mentioned the main conclusion of this previous work. (b) The influence of the direct suggestion of the experimenter in raising or lowering the reported extents of movement. (c) The influence of a fellow member with prestige (cooperating with the experimenter) on another ("naive") member of the group. (d) The influence of one naive member on the judgments of another. In this last case there is no prestige effect, because the subjects have not met each other prior to the experiment.

We shall say only a few words about the experiments under (b). If the subject is distributing his judgments, say, about three inches, without any socially introduced influence, the remark of the experimenter, "you are underestimating the distances" tends to raise the point round which the judgments are distributed to about five or six inches.

The following experiment under (c) shows how the auto-kinetic phenomenon can be utilized as a sensitive index of the prestige effect of one person on another:

Here we report verbatim the account of an experiment with prestige:

"Miss X and I (Assistant in Psychology, Columbia University) were subjects for Dr. Sherif. I was well acquainted with the experiment but Miss X knew nothing whatsoever about it. Since she was a close friend of mine, and I carried some prestige with her, Dr. Sherif suggested that it would be interesting to see if we could predetermine her judgments. It was agreed beforehand that I was to give no judgments until she has set her own standard. After a few stimulations it was quite clear that her judgments were going to vary around five inches. At the next appropriate stimulation, I made a judgment of twelve inches. Miss X's next judgment was eight inches. I varied my judgments around twelve inches and she did the same. Then I changed my judgment to three inches, suggesting to Dr. Sherif that he had changed it. She gradually came down to my standard, but not without some apparent resistance. When it was clear that she had accepted this new standard, Dr. Sherif suggested that I make no more judgments lest I might influence hers. He then informed her on a subsequent stimulation that she was underestimating the distance which the point moved. Immediately her judgments were made larger and she established a new standard. However, she was a little uneasy with it all, and before the experiment had progressed much farther, whispered to me 'Get me out of here.'

"When we were again in my office, I told her that the point had not moved at all during the experiment. She seemed quite disturbed about it, and was very much embarrassed to know that we had been deceiving her. Noting her perturbation, I turned the conversation to other matters. However, several times during our conversation she came back to the subject, saying, 'I don't like that man' (referring to Dr. Sherif) and similar statements indicating her displeasure with the experience. It was not until some weeks later when she was again in my office that I discovered the full extent of her aversion. I asked her to serve as a subject for me in an experiment and immediately she exclaimed, 'Not down in *that* room,' pointing to Dr. Sherif's experimental room."

The experiment which will be given presently deals with the influence of a fellow member in the adoption of a prescribed norm. There were seven groups in this experiment, each group consisting of two members. In every group one subject cooperated with the experimenter, i. e., deliberately distributed his judgments within the range and around the norm assigned to him by the experimenter beforehand. The other subject was unaware of this predetermination. The degree of this "naive" subject's conformity to the norm and range of the cooperating subject may be taken as the index of the social influence. In all the groups the subject who was cooperating with the experimenter was the same person. This was done in order to keep the influencing member constant in all groups.

The range and norm prescribed for every group were different. For the first group, the prescribed range was 1-3 inches, 2 inches being the prescribed norm. For the second group, the prescribed range was 2-4, and 3 inches the norm, and so on to the eighth group for which the range and norm were 7-9 and 8 respectively. It will be observed that the prescribed range was rather narrow; consequently in the course of the experimental period the cooperating subject gave no judgments which deviated from the norm by more than one inch in either direction.

In the first experimental session, both subjects (the cooperating and the "naive") took part. After each exposure of the point of light for two seconds, the subjects spoke their judgments aloud one at a time and the experimenter recorded these on separate sheets of different colored pads. In order not to stress the factor of primacy, the cooperating subject was instructed to let the other subject utter his judgment first, at least half of the time. The social influence in our previous experiments with the autokinetic effect was found to be not so much a function of this and that separate judgments as of the temporal sequence of judgments. Fifty judgments were taken from each subject.

In the second session only the naive subject was present, so that we might see how much of the prescribed range and norm he carried from the first group session. In this individual session also, fifty judgments were taken. As the norm formation in the autokinetic effect is a fragile and, in a sense, artificial formation, such an arbitrary prescription may break down easily beyond a certain number of judgments. Our whole point is that the autokinetic effect can be utilized to show a general psycho-

logical tendency and not to reveal the concrete properties of norm-formation in actual life situations.

In the presentation of results we give the prescribed range and norm, and the number of judgments of the "naive" subject falling within the prescribed range, and his norms (as represented by the median of the distribution of his judgments) in the first (group) and second (individual) sessions. The means and medians of the distributions of the judgments given by the co-operating subject in the group sessions are not exactly identical with the prescribed norms, though the modes and ranges are the same. We did not think it necessary for him to memorize a perfectly normal distribution. Our aim is chiefly to show a fundamental psychological tendency related to norm-formation.

GROUP 1

<i>Prescribed</i>	<i>Experimentally obtained (from "naive" S)</i>	
	<i>Session I (in group)</i>	<i>Session II (alone)</i>
Range 1-3 inches	1.5	1.4
Norm 2	3.36	2.62
No. of the 50 judgments falling within the pre- scribed range	41	47

At the end of the second (individual) session the subject was asked to answer in writing four questions related to the problem. The answers to two of the questions further verify our former results. We shall therefore confine ourselves to the introspections given to the other two questions which are important for our present paper. These questions were: (1) What was the distance that the light most frequently moved? (this was formulated to find out whether the subjects became conscious of the norm formed in the course of the experiment); (2) Were you influenced by the judgments of the other person who was present during the first session? (this question was formulated in order to find out whether the subjects were conscious of the fact that they were being influenced by the co-operating subject).

The introspections of the subject in Group 1 are important for any theory of suggestion and norm formation:

1. "Most frequent distance was 2 inches. Seemed to be more consistently 2 inches second day than on first day.

2. "Yes, they were despite my efforts to be impartial. Probably many of my judgments were inordinately large because of small distances given by other subject. I think this was an attempt at avoiding suggestion and in so doing going to the other extreme. I do not think I was influenced by first day's judgments on the second day. I tried to be impartial in my judgments the first day. I felt resentment toward the other subject the first day because of the successive equal judgments by him. I tried to be objective toward this feeling: that is to banish the thought. But I feel that this resentment caused my judgments to differ from his by a greater amount than they would have if the judgments had been kept separate; that is if I had not heard his judgments. The second day I felt more independence in my judgments and I believe that these judgments were therefore more accurate."

GROUP 2

<i>Prescribed</i>	<i>Experimentally obtained (from "naïve" S)</i>	
	<i>Session I (in group)</i>	<i>Session II (alone)</i>
Range 2-4 inches	1-10	1-5
Norm 3 inches	4.25	3.77
No. of the 50 judgments falling within the pre- scribed range	30	43

The introspections to the two questions were:

1. "Three or four inches were the most frequent estimates.
2. "No, I was not influenced by the other person. This I believe was because I stated my estimates first for the most part."

GROUP 3

<i>Prescribed</i>	<i>Experimentally obtained (from "naïve" S)</i>	
	<i>Session I (in group)</i>	<i>Session II (alone)</i>
Range 3-5	2-8	3-6
Norm 4	4.61	4.57
No. of the 50 judgments falling within the pre- scribed range	43	49

The introspections follow:

1. "(a) 4 inches yesterday.
"(b) 5 inches today.
2. "Yes, My first judgments are much higher than those following. In a way I scaled them down to ranges nearer to his. The majority of times I gave my judgments first. The same distance seemed shorter after a few trials. My judgments were influenced by yesterday's. I measured them by the same scale both days."

GROUP 4

<i>Prescribed</i>	<i>Experimentally obtained (from "naive" S)</i>	
	Session I (in group)	Session II (alone)
Range 4-6	3-6	3-6
Norm 5	5.20	5.21
No. of the 50 judgments falling within the pre- scribed range	47	46

The introspections:

1. "5 inches.
2. "For the first three or four times. After that, no."

GROUP 5

<i>Prescribed</i>	<i>Experimentally obtained (from "naive" S)</i>	
	Session I (in group)	Session II (alone)
Range 5-7	3-7	3-7
Norm 6	5.50	5.42
No. of the 50 judgments falling within the pre- scribed range	34	35

The introspections:

1. "Five inches both days.
2. "No. I was not influenced by the presence of another person. But I sincerely believe that my partner was exaggerating the distance when he made his estimate. I say this because it seemed to me that he hesitated several seconds after I gave my estimate . . ."

GROUP 6

<i>Prescribed</i>	<i>Experimentally obtained (from "naive" S)</i>	
	<i>Session I (in group)</i>	<i>Session II (alone)</i>
Range 6-8	3-8	4-8
Norm 7	5.94	6.18
No. of the 50 judgments falling within the pre- scribed range	24	27

The introspections:

1. "7 most frequent, 5 next frequent.
2. "No, I was not influenced."

GROUP 7

<i>Prescribed</i>	<i>Experimentally obtained (from "naive" S)</i>	
	<i>Session I (in group)</i>	<i>Session II (alone)</i>
Range 7-9	4-12	6-9
Norm 8	7.40	7.83
No. of the 50 judgments falling within the pre- scribed range	17	40

The introspections:

1. "The most frequent distance was about 8 inches. The next most frequent was about 7 inches.
2. "I think it did make a difference when somebody else was with me. When I gave my judgment first, there was no difference, of course, but when he was with me I sometimes, though not all the time, modified my judgment when it was very far from his, and when I thought that I might easily have been mistaken. Of course, this did not occur frequently, but I cannot deny that it happened sometimes."

GENERAL CONCLUSION

From these results we may conclude that the subjects may be influenced to perceive an indefinite stimulus field in terms of an experimentally introduced norm. The degree of the influence may be different in different subjects. It may be great as is the case of the subject of group 4. It may not be so striking as is the case of the subject of group 5. It may be negligible as is the

case with the subject of group 6. Even in this last mentioned case, an influence on the norm (not in the range) is evident.

The introspections reveal that the subjects become conscious of the norm which develops in the course of the experiment. However, they need not be conscious of the fact that they are being influenced toward that norm by the other member of the group. (See introspections of the subjects in groups 1, 2 and 4.) In connection with this point, it is interesting to note that in some cases, the *conformity* to the prescribed range and norm when the *influencing* person is no longer present (Session II) is closer than the *conformity* produced by his actual presence. (See the results of groups 2, 3, 6, 7.)

It seems to us that the psychological process embodied in these facts may be basic to the daily phenomena of suggestion, especially to the role of suggestion in the formation of attitudes. It is not a rare occurrence in everyday life to react negatively or hesitatingly to suggestion on some topic raised by an acquaintance while in his presence, but to respond positively after leaving him (perhaps there is a disinclination to accept suggestions readily unless there is some strong prestige or pressing demand; to appear easily yielding is not so pleasant for an "ego").

Attitudes, whatever else they may be, imply *characteristic modes of readiness in reacting* to definite objects, situations and persons. Our experiment has demonstrated in a simple way how a *characteristic* kind of readiness may be experimentally obtained in relation to an indefinite stimulus field. Perhaps this may constitute a step in the direction of the truly psychological investigation of attitudes.

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STRUCTURE OF LEADERSHIP—DEVELOPMENT AND SPHERE OF INFLUENCE¹

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In a community, the possibility of influence from one individual to others is as great as the entire population. But between the individual and the possibility of influencing comes his range of emotional expansiveness and the capacity of the individuals who make up the population to receive and respond to the particular feelings projected by the individual sender. The movement of feeling between individuals is called "tele." Out of an initial population of 493 persons we have traced the phenomena of leader structures as they emerge and develop in the course of 2 years 7 months. Such structures are vastly important in the psychological geography of a community as they are potentially powerful in the influence they may exert. These structures may be visualized as centers where spontaneously large currents of tele focus about a person. Such a person is thus in a position of "leadership"². The extent of possible influence will be determined by both temporal and spacial aspects of the structure. The duration in time and the spread in space are to be seen also as functions of the leadership structure growing out of inter-personal relationships and registered in the psychological organization of the community.

Sometimes the leadership structure arises almost at once upon the entrance into the community of the individual who is to hold it; again, it may emerge slowly and with difficulty. Throughout whatever course it follows, study of its structure in space and time becomes perceptible when we closely watch from step to step, over a long period the reflection in psychological position of a person, in his power to win and retain the emotional loyalty and devotion of others who look to him for support of whatever nature. The sociometric technique makes traceable the emergence, development, and decline of psychological structures, and its use appears to be basic to the study of functions such as leadership since it reaches below exterior relationships to the

¹To Dr. Fannie French Morse I express my gratitude for her continued assistance to sociometric study and in particular for her wise and generous guidance as Superintendent.

²Leadership is used here in a sociometric sense as expressing the position an individual has in the specific group studied.

networks of tele in which resides the vehicle for inter-personal influences.

THE PROBLEM

In seeking to study leader structures within the psychological organization of groups through sociometric testing, we have followed three conditions we considered essential to the securing of authentic data over a long period. First, the criterion of the test shall be "strong," that is, shall require the choosing on the basis of person-to-person contact. Second, the criterion of the test shall be such that the choices can be immediately utilized from the subjects' viewpoint, that is, shall be universally put into operation with equal benefit to all in order that the choosing "have sense." Third, the testing upon the criterion selected shall be repeatable at intervals without a lessening for the subjects of the value of choosing.

An examination of the different criteria used in sociometric testing of our community, the New York State Training School for Girls³, Hudson, N. Y., showed that a significant criterion for face-to-face contact was the choosing of table associates, "eating at the same table." The motivations for choosing table associates showed the choices to be based on the very factors important in intensive relationships: (1) physical proximity,—comfort and ease of being physically near to the chosen person, near to her appearance, stature and physique, and somehow feeling thereby better satisfied; (2) psychological proximity,—psychological closeness in the exchange of thoughts, ideas and moods, the comfort and sympathy of such understanding, (3) the intangible motivation of "makes me feel good while I eat" which expresses something of the situation itself—unsupervised sitting around a table, without adults, in the relaxed occupation of eating a meal together. In this situation, with its relative absence of distraction and restraint, the degree of spontaneity reached in warming up to one another for easy communicating can be estimated as high.

Three choices expressing degrees of preference were allowed to each girl.

The technique worked out for putting the choices into operation consisted of assuring each subject an "optimum of satisfaction" within the possibilities of the psychological organization.

³This community consists almost exclusively of girls and women. The economic criterion in the usual sense is absent. The population is supported by the State.

In practice, this resulted in every subject's receiving at her table the highest choice she made which met with reciprocation and if she had no reciprocated choices, then her highest unreciprocated (hence, her first) choice⁴. The tables seated four or rarely more persons and very seldom was a subject given less than optimum either because of a limitation within the structure or because of seating capacity. In other words, every subject, regardless of whether she was shown as isolated⁵ (unchosen) through the test or perhaps as much chosen but choosing first someone other than those who chose her, received *optimum* from *her* point of view. It was thus possible to fulfill one or more choices of practically every subject immediately after every testing, and no one subject ever had to have no satisfaction in two successive periods.

An 8-week interval elapsed after each test, during which time a few newcomers might enter or a few girls might go out through reassignment to a different cottage or through leaving the school. The 8-week interval was selected after try-outs with 4, 5, and 6-week periods, since these recorded less change in the psychological organization. The 8-week interim also provided a further interest since the population might be altered by one or more incoming or outgoing persons. The choices stayed in effect in the table set-ups throughout the 8 weeks, providing 56 days with 3 meals a day, or 168 times together across the table with the persons chosen. If, after 168 such reunions, the individual still wants the same person again as a partner, the relationship apparently is based on a real affinity.

An examination of the structures produced showed that the receiving of any number of choices greater than 3 was better than average; that the receiving of 4 choices did not "stand out" sufficiently in point of frequency to be taken even tentatively as a "leader structure;" but the receiving of 5 or more choices, which occurs in about 20 per cent of the structures would provide a good basal distinction for the leader position since it would eliminate from our analysis no one who stood out under this broad stipulation and also for two further reasons. The disturbance made in the psychological organization by an incoming or outgoing person often produces a temporary shifting of tele. Also the social atom of any individual is subject to more or less

⁴For a discussion of this sociometric technique of placement, see reference 2, pp. 26-40.

⁵In this paper, an individual is called "isolated" who is unchosen by any member of the group in respect to the particular criterion of the test.

shrinkage and expansion for which a basal of 5 choices received provides an allowance. One could, of course, examine leader structures with a basal of 6, 7, 8, 10, 15, or any number of choices, but for our purpose we study structures receiving 5 or more and even though they occur only once or twice in the developmental process over the course of a year or more and notice individuals to whom we would give no attention if the criterion taken for a leader structure were different and the structure less frequent. In any case, the choices expressed are voluntarily, spontaneously given, and we have thus some reason to acknowledge that these are the individuals who draw others to them by influences of one sort or another.

In August 1934, 75 leadership structures appear, under these conditions, on the psychological geography of this community whose population was then 493, of whom 375 were living in cottage groups. These leader positions, although so simply defined above for the purpose of our analysis, are however highly variable in composition—quantitatively, structurally, and qualitatively—one from another and show dynamic changes as we follow them in time and space. Sometimes they spread to include a fourth or more of the entire population and again they may be limited to the bare confines of the immediate tele relations, since the persons attracted are themselves in side currents of the psychological organization. The quantitative aspect, the number of individuals directly linked to the person in a leader position, may expand or shrink from time to time, but the structure of the position may remain potentially powerful because of its indirect linkage to other structures whose magnitude extends broadly throughout the community. Again, the qualitative aspect of the tele bond between individuals may reveal an importance totally out of proportion to the quantitative or structural aspect.

In the present study all the leadership structures which evolved out of a particular cottage group are presented, whether or not they endure throughout the entire period of the survey, August 1934 to February 1937 inclusive, and whether or not their potential influence is great or small, as the structures emanating from this cottage offer us considerable insight into the dynamics of leader development.

This cottage was selected for presentation for a number of reasons: (1) its members, in greater number than any other group's, belong to the main networks of the community; (2) the heterogeneous character of the leader structures evolving

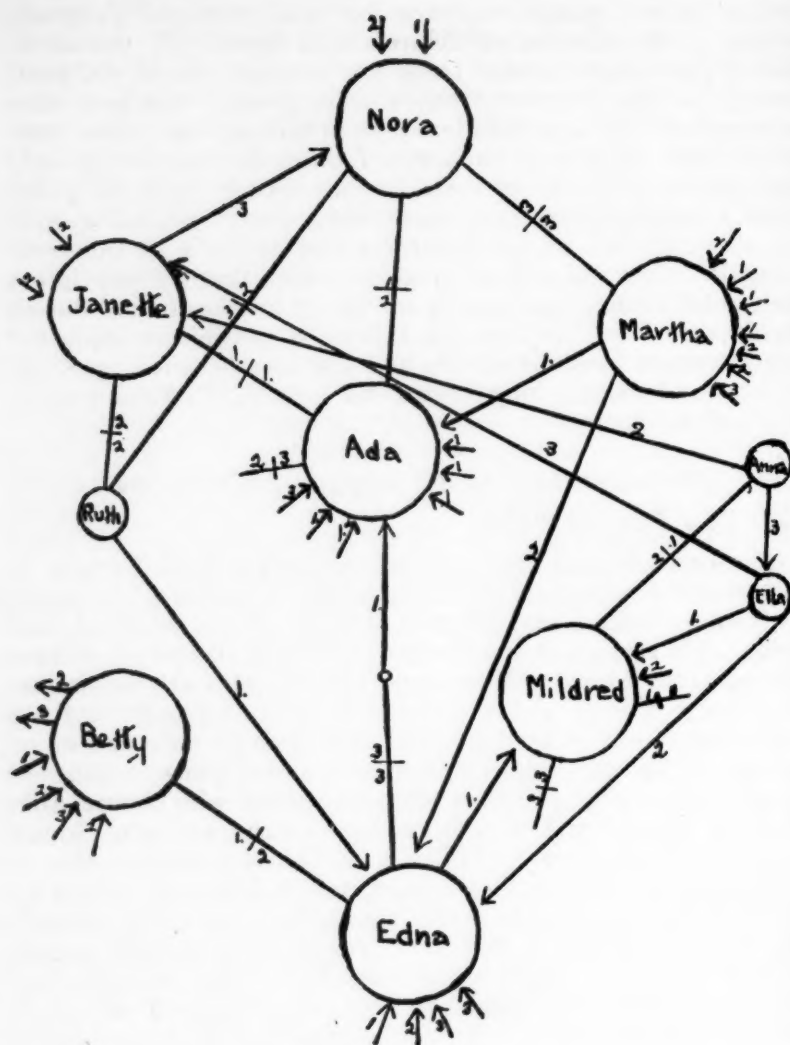
from this group represent "types" of leader development found elsewhere more scattered in the community, and include such a wide variety of types that it would be necessary otherwise to present several groups to cover the same number, this group having a concentration of differentiated types; (3) the variation in population number from one 8-weeks' test to the next, throughout the seventeen tests, is never greater than two members more or two members less than in the previous period tested; 6 times there is no variation, 7 times the variation is only one member, and 3 times the difference is two; hence the group offers a comparatively stable *quantitative* population background out of which the leader structures emerge; (4) at the same time, the influx and exit of members is such that the population consists of 70 different persons for one or another period during the 2 years 7 months covered, making it possible to study the impress made by short-stayers and the reverberation upon the structure of exiting long-stayers, on into the "second generation" of members.

DEVELOPMENT OF LEADERSHIP STRUCTURES

First Test (August 1934)

The psychological organization revealed in Park Cottage in August 1934 shows seven individuals in positions of apparent leadership: Ada, Edna, Martha, Janette, Nora, Mildred, and Betty. Ada receives 9 first choices (besides 2 others), 3 of these coming from Martha, Nora, and Janette, who are themselves in leader positions. Ada's first choice goes to Janette and her second to Nora. Edna's position is singularly independent of the rest of the psychological structure, and appears to function among girls who pay little attention to those who choose Ada. Only one of the 8 girls who choose her also chooses Ada. Edna's own first choice goes to Mildred. Mildred receives only 6 choices, all of which, with the exception of Edna's are from individuals who are either isolated or else very little chosen. Martha receives 8, but only her third, to Nora, is reciprocated, while her first, to Ada, and her second, to Edna, are not. Janette is the center of 6 and has first mutual choices with Ada. She chooses Nora third. Nora, the center of 6, receives Ada's second choice in response to her own first choice, and like Ada has all of her own three choices reciprocated. Betty receives 5, all from individuals inconspicuously located in the organization,

except for the reciprocation of Edna to her first choice. (See Sociogram I.)



SOCIOGRAM I

Leader Nucleus Lifted from Structure of Park Cottage
1st Test: August 1934

As we glance over the interrelations direct and indirect, Mildred and Betty, although well chosen, appear to be unimportant in the structure of the group as a whole—this because they could be lifted out completely and the remaining structure of the group would still retain direct repositories for the other choices of the individuals who select them. That is, either Ada, Edna, Martha, Janette, or Nora receive choices from all but one of those who choose Mildred and Betty.

Three girls, Ruth, Anna, and Ella, seek practically exclusively to be chosen by the girls in most powerful leader positions. Although they have recently entered the group, without exception they ignore other newcomers and others who are similarly little chosen. Incidentally all three have IQ's ranging well above 107, as have also Ada, Edna, Janette, Martha, and Nora. Nora, who comes from the same city as Ruth, reciprocates her choice as does Janette whom Nora could have reciprocated only if she had been allowed a fourth choice. It is to be noted that Ruth chooses Edna first, who does not respond. Ella also chooses Edna and Janette as well as Mildred, none of whom respond. Anna seeks out Janette, Mildred, and Ella, only Mildred reciprocating. These three girls as newcomers aim high, spontaneously choosing key individuals although they themselves are largely disregarded by those whom they choose, who are already well-steeped in the psychological networks, fortified by the regard of many and not anxiously looking about for reciprocation as are the isolated or less auspiciously situated individuals.

Second Test (September 1934)

In September, Ada is paroled. There appears the strengthening of the positions of Edna, Martha, Janette, and Nora, and a weakening of Mildred's and Betty's, but otherwise no shift in leader structures. Nora and Edna exchange mutual first choices and Martha and Edna mutually choose each other, while Martha chooses Nora who does not respond. Of the four girls, Janette appears to be the most independent of relationships to other leaders but gives Edna her third choice. Betty has dropped to a position of receiving but two choices. Anna and Ella are still unable to break into the structure and mutually choose each other. Ruth continues a mutual relationship to Nora but still gets no response from Martha or Janette, her other choices.

Third Test (November 1934)

In November 1934, the situation is very little altered except that Janette through choosing Ella appears to have precipitated Ella's climb to a leader position. The only other leader structure is that of Dora whom Martha chooses. Both Betty and Mildred continue to decline.

Fourth Test (February 1935)

By February 1935, Edna has gone out of the institution. The psychological organization maintains the same leaders, suppressing for the time being, it appears, the rise of others except Olga. Olga gathers in Mary who chooses her mutually and who formerly had chosen Edna first. Together they hold several who choose both of them. Mary had chosen Edna consistently as her first choice since September 1934.

Fifth Test (April 1935)

By the time of the April test, Martha had been paroled, as well as Mildred and Mary, the latter being older girls re-assigned to the cottage. With the exit of Martha, Dora falls out of the leader position she had had in November, has only 2 choices, then becomes isolated in April and leaves the group. A new girl, Myra, and a re-assigned girl, Jane, enter. Myra makes little impression, but Jane is mutually chosen by leaders Janette and Ella who also choose each other. Leadership positions still remain in the same hands except that Jane has also achieved one.

Sixth Test (June 1935)

By June, Dora and Olga are paroled. Pauline, Catherine, Lucille, and Carol enter. Of these four girls, only Pauline chooses first a leader, Nora. Leader positions are undisturbed except that Jane has fallen from her quickly gained one. Consecutive tests given up until she leaves the group in January 1936 never again reveal her in leadership. The suddenly emerging type of leader structure has to be evaluated with care, for it is not necessarily lasting simply because it appears supported on all sides. It apparently can decline as rapidly as it arises.

Seventh Test (July 1935)

By July the psychological organization is still closely integrated, although Nora has left it. Nora had been Pauline's first choice and also a choice of Janette's. Now Pauline, Janette,

and Ella mutually choose one another and all three remain in leadership. Catherine comes into a leader position cut off from this structure, winning several "rebels" against the content of the social currents within the main networks. Ruth rejects her and loses choices by displacement to Catherine. Ruth remains in a key position, however, chosen mutually first by Anna and choosing Janette and Ella, but has dropped out of a leader position.

Eighth Test (September 1935)

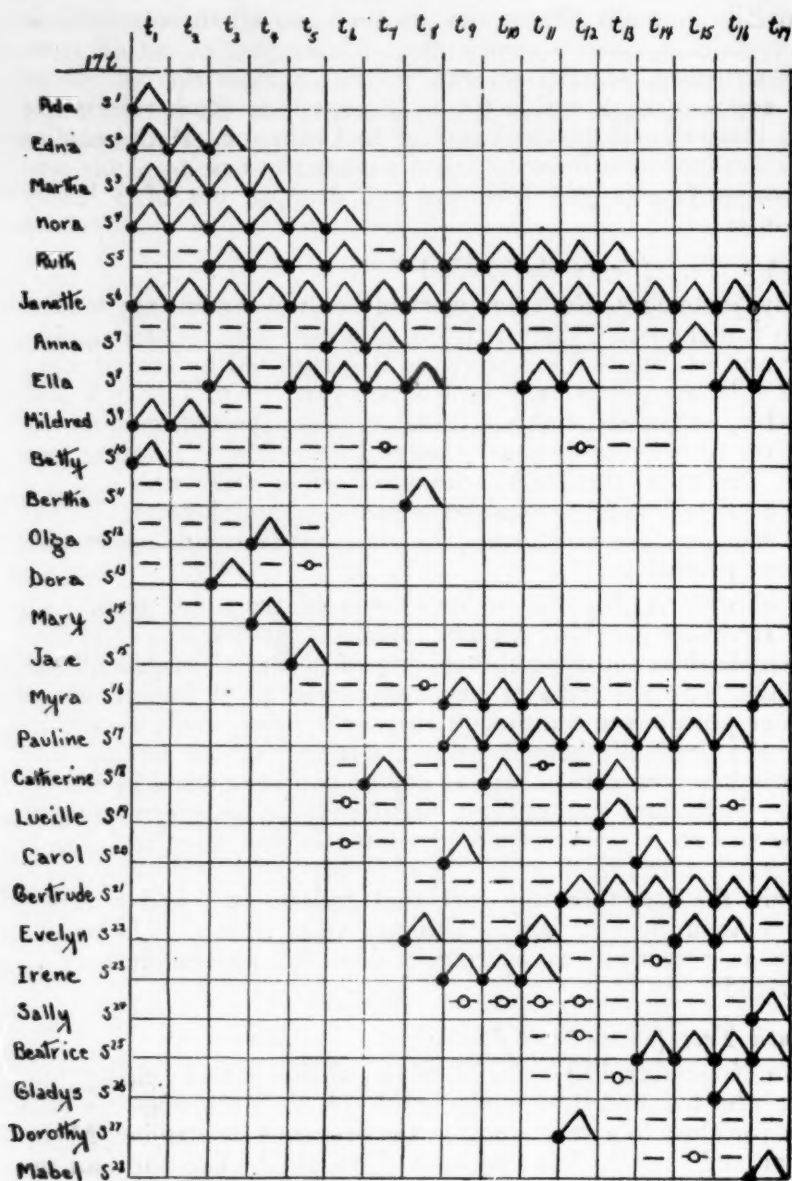
By September, Ruth has worked her way again into leadership and chooses Catherine third, although other leaders ignore her and her split-off structure, as if disciplined by the stronger and older structures, is shown to have broken up. One new girl, Evelyn, enters and builds a leader position through gaining the choices of isolated or nearly isolated individuals. Another new girl, Gertrude, also enters, chooses Evelyn, Betty who has just come into a leader position before leaving, and Janette who has the strongest position among the girls, but Gertrude meets with no reciprocation.

Gertrude is destined to have to build from the ground up the structure in which she can function. At first she is all but isolated, then she wins the choices of several "nobodies," but all the time she aims at key individuals or at individuals in leader positions and although they only slowly come to choose her she gradually herself gains a position of leadership and finally has been chosen also at one or another period by almost every individual who holds a leader position and even by those who rise to it only temporarily, later falling from it. She is longest ignored by Janette. In view of the later developments within the structure, the fact that Janette had had a choice from Anna more or less continuously since August 1934 will be seen as potentially accounting in part for her indifference to Gertrude.

Ninth Test (November 1935)

In November 1935, a leadership position is still held by Janette who has had it since August 1934, by Ruth who has held one for close to a year, and for the first time by Pauline, Myra, Irene and Carol⁶. We note that although Pauline had had the choice of Janette since July, a first choice which she receives

⁶Regarding Carol, see page 112.



The Δ was omitted by error for Ella under t₈.

SOCIOGRAM S-T
Space-Time Structure of a Leader Group

Δ = State of leadership.

— = pause, present but not in state of leadership.

from Gertrude in November and reciprocates coincides with her rise to a leadership position. The event of Myra's coming into a leadership structure for the first time coincides with her receiving (and reciprocating) for the first time a choice from the leader Ruth although in June she had choices from the leaders Janette and Ella. Irene, who entered in September, immediately forms a mutual first-second relation with the leader Ruth, is chosen also by 3 others, and in November has a leader position.

The relation of crucially located tele structures to the rise in the psychological position of an individual is an uncharted territory in sociometric research, but that it plays a considerable role seems indicated.

To sum up (see Sociogram S-T), there are in November 1935 six leader positions, whereas a year ago there were seven. Only two (Janette and Ruth) of the seven persons in the leader structures of November 1934 are still in the group, Ella being temporarily absent on vacation, and the four others having been paroled. But the traditional form of the structure—highly integrated and with a spreading, ramified outline centers in practically the same number of persons, although the *carriers* have changed. There is no "loss" from a structural point of view. If the names of the former leaders were transposed in strategic positions in the places of the present leaders within the structure, an amazing similarity becomes apparent. There is, however, a development in the capacity of the organization to absorb widely different personalities. An example of this will be discussed when we consider, for instance, Anna.

Tenth Test (January 1936)

In January 1936, Ruth, Janette, Anna, and Pauline are still

—o— = present but isolated.

Blank space = not yet in the group or has left the group.

t = 8 weeks.

17t = total duration: 8 weeks x 17, 136 weeks.

s = unit of spacial proximity.

28s = total spacial extension of leadership states.

● = point of coordination.

The time units on the abscissa express equal temporal distances, in this case, 8 weeks.

The space units on the ordinate express equal spacial distances, in this case proximity of living in the same house.

The axis of the abscissa presents time relation of leader structures. The axis of the ordinate presents space relation of leader structures*.

*This form of sociogram was devised by J. L. Moreno. See Das Stegreif-theater, pp. 88-95.

well entrenched. Catherine is again "acting up" by erecting a structure propelled by herself and linked to the main structure only by distant tele relations. The following test (March) finds her isolated; the next (April), isolated but for one choice; in June she is again producing a leadership structure which is, except for one member, composed entirely of different individuals from those than her two previous successes (July 1935 and January 1936) had held. She was then re-assigned.

Myra maintains the leadership position won in November and seldom thereafter fluctuates far below it. Myra had been chosen by Gertrude in January and by April she begins reciprocating until she comes into a first-first relationship with her in October, a first-second in December and a first-first again in February 1937.

The January 1936 test also shows Irene again in a leader structure. She is the center of 3 second choices from leaders Ruth, Gertrude, and Myra, and has 5 other choices. Although she has 9 choices in March, she thereafter withdraws persistently from those who still seek her until at one period she is shown unchosen (August 1936). She says, "All these girls are nothing to me since I'm studying nursing; it's my life work and it's my pleasure so I've no time for them any more." She appears as an individual capable of leadership and much wanted even by other leaders, who forsakes this role deliberately to devote herself to a personal pursuit in which the group would serve but to dissipate or divert her forces. She is an example of emotional energy directed towards a value, in this case, a definite profession, instead of distributed in the channels in which it ordinarily coursed hitherto⁷.

Eleventh Test (March 1936)

In March 1936, leadership is held by Ruth, Janette, Pauline, Ella, and Myra. Another in such a position is Evelyn who has a mutual relation to Gertrude. Thereafter Gertrude is directed away from her for several months, during which time Evelyn loses in position, becomes nearly unchosen, and then begins persistently to gain choices from others who are isolated or

⁷With the entrance in April 1937 of a re-assigned girl, Rita, who is studying nursing-child care, to whom Irene gives her first choice, the withdrawal breaks down, and in the April 1937 test (not included in this report), we see her again in a leader structure, the focus of 8,—as if her response had been always available only she had not cared to expend it. She remarks, "Rita is the only girl I've met who understands since Anna went out." This one link seems to bridge the gap and to catapult her energies back into the structure.

nearly so. In this she succeeds so well that in October and December 1936 she is again in a leader structure.

Sally, who had entered as a new girl in November 1935, remains isolated until June and receives 1 or 2 choices from then on until December of 1936 when the leader Pauline whom she had sought out since October chooses her. The next test (February 1937) then reveals her in a leader position, the focus of 8 choices, including the second and third choices of Janette and Gertrude. In the meanwhile, Pauline through a vocational assignment is absent from the group during their times together. A second factor may have aided this development. Sally's baby, to whom she was devoted, had been happily placed to her satisfaction outside the institution and she threw herself into completing her training quickly to be with him.

Mabel, who had entered the group in August 1936, chooses and is chosen by girls on the periphery of the psychological organization, so to speak, who are themselves not yet a part of any main network, and there is an almost total lack of clicking in this choosing. After a temporarily isolated position in October, one reciprocation is found in December, this from an individual whose positions have similar characteristics, and together with a third girl, a "sub-group" is formed which chooses among themselves and otherwise has no reciprocations. The isolated who choose them are other than those whom they choose. Mabel eventually through this development has in February 1937 a leader position.

Similar evolutions into fairly well balanced positions are produced by Beatrice and Gladys, two girls who entered in March 1936. All three of these individuals aim consistently within the strata which eventually reciprocates. Such developments are important also because they provide easier structures for the isolated to weave their way into in time. They apparently are not so formidably crystallized and they have not so much temporal age. For as a rule, the isolated do not choose into the highly organized and established structures.

Yet the person who is not readily "satisfied," who seeks beyond what can be immediately obtained from the structure, is also not to be "scorned," however aggravating to any person of "adjustment." The future destiny in psychological position seems often to depend upon such initiation of tele that must wait for belated eventual reciprocation. Although demonstrated in our miniature community, it may be none the less "authentic"

for interrelations in the community at large.

Carol, who entered the group in June 1935, at first isolated, develops a leadership position twice, November 1935 and August 1936. She varies greatly both in the choices she receives and gives, and especially in her fluctuations from one test to another during which she erratically changes her choices from isolated individuals to choices for key persons or for leaders, and her position is accordingly highly unstable. Characteristic is her choosing of Janette when Janette does not respond and Anna's choosing of her to which she does not respond. Anna says of her, "She's really intellectual⁸, you can discuss with her." Janette says, "Carol seems like a person with a lot on her mind and yet there isn't anything there, only discontent, and she figures she has to get a lot over on you and then she's safe. It's always a mean trick that's her idea of play." Carol chooses Ella in April and June 1936 unreciprocally. In August and October they choose each other but not again thereafter.

A few individuals in practically all the groups studied⁹ are found, like Carol and Catherine, to fluctuate rather wildly for a time until they reach positions which form some sort of balance between the membership's saturation point for them and their saturation point for participation in the cultural and social networks of the group. While all individuals go through some process of finding satisfactory and durable interrelations, there are apparently large individual differences in the facility with which this is accomplished. Some individuals' structures show such continued flux in their composition, both qualitative and quantitative, that their social atoms are distinctly unstable as compared with those most frequently found.

Twelfth Test (April 1936)

In April 1936, there appear the same leaders, Ruth, Janette, and Pauline, mutually choosing each other and supported by Ella, also a leader, and by Anna. And for the first time we find Gertrude in a leader position, the focus of 8 choices, all from moderately well chosen (2-4) persons. There is one newcomer, Dorothy, shown in a leader position, and chosen by Gertrude, Janette, Pauline, and Ruth. Dorothy reciprocates only Ruth

⁸Carol has good academic standing; was the "accountant" and "Bank President" in the institution's store, a project run by the students studying salesmanship.

⁹Sixteen cottages besides a farm group, a hospital group, and a receiving cottage group.

and persists in choosing her first also in June but neither Ruth nor any other person in a leadership position ever chooses her again. Dorothy does not again appear as a leader.

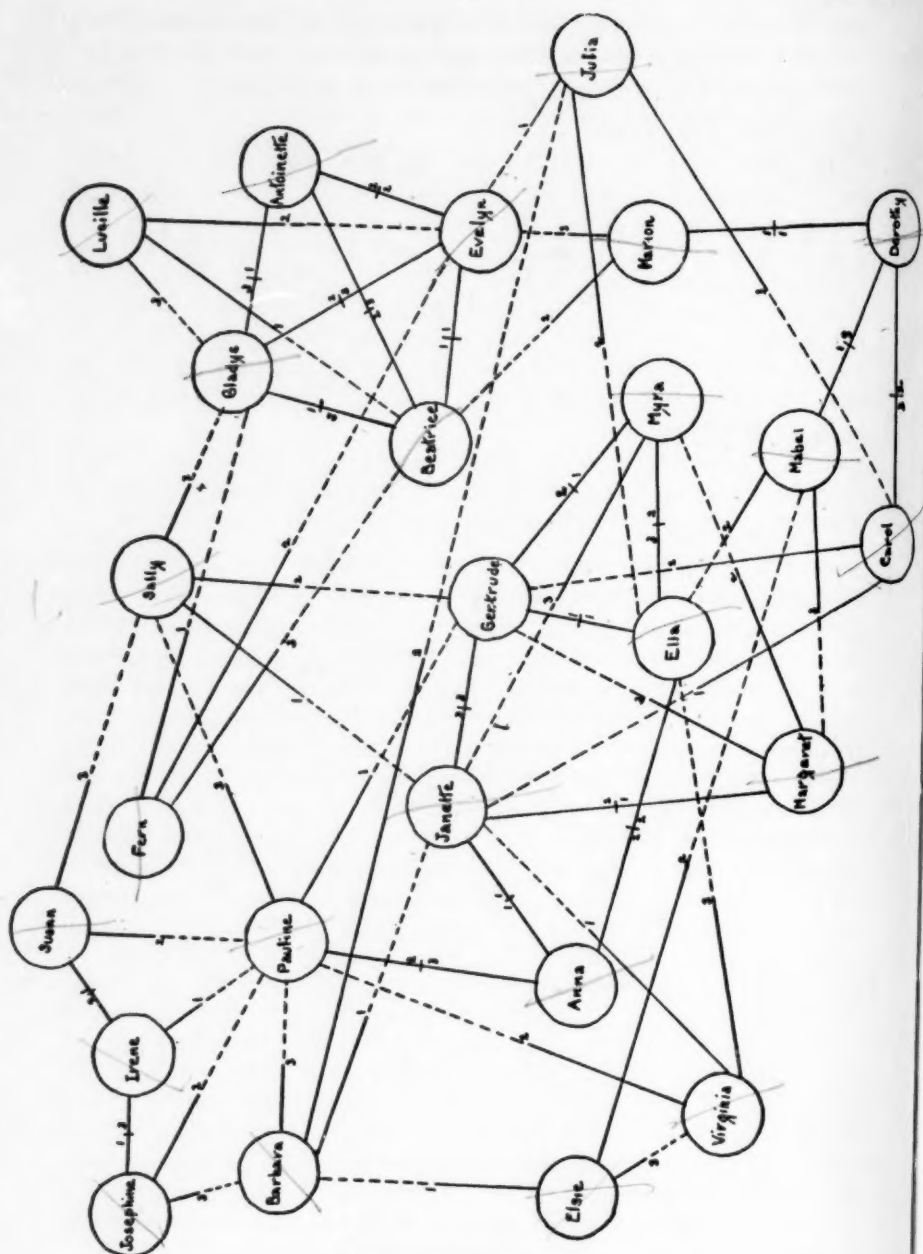
Thirteenth Test (June 1936)

In June 1936 the test shows one new, suddenly emerging, leader structure around an individual Lucille, who had been in the group for one year. In tracing its development, we find Lucille had chosen Gertrude in March and April 1936, and Gertrude reciprocating in June 1936. (Previously she had not chosen key persons.) Thereafter there is no relationship apparent between them and Lucille's position immediately shows a return to its former status, only 1 to 3 girls choosing her. In the process she is shown at one time (December 1936) in an isolated position.

After June 1936, when Ruth has been paroled, no further dynamic changes, not previously indicated, significantly divert or disarrange the main tele of the psychological organization.

Sixteenth Test (December 1936)

To sum up (see Sociogram II), there are in December 1936 seven leader positions. A year ago (end of November 1935) there were six. Two of the previous leaders (Janette and Pauline) are still leaders, but although only one (Ruth) has been lost by parole, the other three remain in the group but out of leadership positions. In their stead are four different individuals (Gertrude, Evelyn, Beatrice and Gladys), besides Ella who had been temporarily absent the November of a year ago. (See Sociogram S-T.) And in the midst of the leader structures is Anna, mutually related to three of them, and otherwise neglected much like a year ago. There is still an interrelated leader nucleus, this time consisting of seven. In general the psychological organization shows about the same degree of complexity, although there are some replacements in the carriers of "top" structures. These replacements, however, are seen to be of persons who had not held leader positions for long—one of them appearing like a deliberate "forsaking" (Irene), one like an "organic" incapacity to retain it (Carol), and the third like an inability to retain it against the forces of the rising structures (Myra). Of the new leader individuals, one appears perhaps only of passing moment (Gladys), two appear with the former in a sub-group (Evelyn and Beatrice), and only one (Gertrude) is well-integrated into the main network.



SOCIOGRAM II

Structure of Park Cottage
 16th Test: December 1936

Choice —————
 No reciprocation - - - - -

Throughout the period of 2 years 7 months a leader nucleus is always in evidence, varying from four to seven persons—only once having so few as four, this being in July 1935, after the loss of Nora, the last of the "older set" and before the growth of the new generation, with Pauline and Gertrude, can come to "maturity" within the psychological structure.

Seventeenth Test (February 1937)

In February 1937, as we look back through all the 447 psychological structures recorded for the 70 different persons since August 1934, we see that Janette has held leadership for a period of 2 years 7 months consistently, that Ruth has held it practically for 1 year and 7 months until her parole, that Ella has held it almost continuously for nearly 2 years, retaining it despite an intervening vacation, that Pauline after achieving it holds it steadily for the year and 4 months since she has had it, and that there are disparate appearances of leader positions here and there throughout this period, some apparently easily won and as easily lost, some apparently depending upon various exigencies of circumstance or perhaps related to the bolstering produced by powerfully influential tele.

The question confronts us, why does Anna, who comes to be the choice of leaders, who has a key position among them, the recipient again and again of their first or second choice, Anna, who is so completely recognized and sought after by the leaders, herself not attain to a leader position but four times and then not decisively during almost the whole period of 2 years 7 months? Also, why does Gertrude, who had to struggle to leadership but who finally wins both leadership and tele relations with leaders, never choose Anna or Anna her?

The essentially independent and even antagonistic roles of Anna and Gertrude are to be understood through the sociometric position characteristic for each of them in their functioning in the group, as well as through the motivations given by the girls in respect to them and theirs in respect to each other. The leader individuals seek and continue to seek Anna almost at once after her entrance into the group. But Gertrude they avoid even though she seeks them. Gertrude is forced to "win" girls in different psychological positions unimportant to the main structure and only after she has succeeded in this and becomes a person to reckon with do the leader individuals respond to her choice of them. Until she has become important in her own

right, so to speak, she is not "recognized" by them. Anna, on the other hand, is "included" by them immediately. Almost exclusively she begins to function only among the leader individuals who need her and Gertrude apparently is not in need of Anna. The leaders who choose Anna are evidently receptive to her special capacity to function constructively with and for them, but Gertrude can function equally well without selective tele-relations with Anna.

In language and manners Anna has more in common with the adults in the community than with girls of her own age. Had the psychological structure not been highly evolved, it is quite possible that Anna would have had the position of isolation, so incapable does she appear of direct leadership in this group. She is able apparently to serve those who serve, that is, the leaders, but the leaders must come to her for otherwise she exists in a psychological vacuum, unnoticed and unwanted, with the surrounding group scarcely aware of her potential worth, unaware because it is invisible to them and unexpressed towards them.

To them, she is "not an outstanding personality, not the sort of person you like to tell things to." "She has an air about her that she doesn't belong here, here in body but not in mind."

On the other hand, Janette says of her, "She knows the whys and wherefores of things and makes us understand things, also the older people (staff) around here. She assumes authority and kids like Pauline and me take it from her, but lots don't. She thinks on the right side of life and comes through like nothing had ever happened to her. When the girls ask me what to do about their troubles I get awfully sensible solutions out of Anna, you'd be surprised. But the girls mostly won't even consider to mention things to her, funny, isn't it? They feel she's more apart from them, not selfish exactly but not warm-hearted either, pretty blunt besides. And Gertrude is so heady herself that she thinks Anna's ideas are no good just because they're not hers. I get along great with them because I know them very very well and I like them both so much. Gertrude is always pursuing an idea down to the last breath, she can be very aggravating that way. They're not really jealous, though. Anna wouldn't be jealous of the King of England himself and Gertrude doesn't have to bother with her, she's so influential." Gertrude says of Anna, "Got no nonchalance, too much 'just so' to suit me. She'd freeze up anybody."

Anna herself says, "I tell Gertrude something and I don't feel maybe she's heard a word, but I tell Pauline and I feel that each little word has sunk down right into her heart. Gertrude hasn't suffered so much as most of us; her mother shielded her from things and that might be why she is this way too. Maybe also, she's like me: when someone tells me what doesn't concern me I might put up a front. She has some good brain—got 100 in arithmetic regents—a lot of common sense behind the big show she puts on, but as a girl she doesn't impress me whatsoever. Too high acting. Even one eyebrow of hers keeps going up. But take Janette—there's something about *her* makes a person look twice and we have mutual interests at heart. She tries to be on everybody's level and to understand things. She can be just like a mother the way she gets the girls to do things. But when she's with me she's just like a baby herself. She gets discouraged with so much to do and then I get her out of it."

The tele produced between Anna and particular leaders is in sociometric terminology called *aristo-tele*—to be effective it can operate *only in a selective sphere of influence and to do so is almost exclusively dependent upon the existing structures of traditional leaders*. In contrast, an *aristo-leader*, like Gertrude, *creates* a leader structure of her own if necessary in order to distribute her energy. It is possible that Ada who appeared in the August 1934 organization as having the strongest leadership of any girl found throughout the total series was also an *aristo-leader*, but as we did not have occasion to make a serial study of her structures over a period of time it is not possible to determine whether or not this is true. She appears as the first choice of three leaders (Janette, Nora, and Martha), two of whom she reciprocates, and also by other girls who are in a wide variety of psychological structures, including three isolations, giving her the possibility of directly influencing the "general population" and its "aristocracy," the structures at various levels in the stratas of the psychological organization, from the "bottom" to the "top." Consequently her psychological position pictures in miniature the structure typical for an *aristo-leader*.

LEADERSHIP POSITIONS

Of the 447 psychological positions recorded in Park Cottage during the period of 2 years 7 months, 101 may be classified as leadership positions. The number of different individuals who were in the group during some portion of this time was 70 and

the number of different individuals ever found in leadership positions was 28. When we survey the series of structures, however, we see that 12 individuals reach such a position only once during their time in the group; that 2 individuals held it only twice during the period studied; and that there is a scattering of individuals who intermittently produce such a structure and intermittently fall from it. (See Tables I, II, III, and Sociogram S-T.) We therefore cannot consider such individuals as necessarily leaders in the community. On the other hand, the fact that a person even once has a leader position for however brief a time, may give to her a significance within the leader structure of the group because she may thus gain an influence and standing with other leaders; and if this period of 8 weeks or less in which she has this standing was an eventful one for the community, full of constructive or destructive happenings (in our community such events as building new projects or epidemics of run-aways), she may be crucially important as belonging to the *elite*

TABLE I
Frequency of Structures of Leadership, Isolation, or other Positions in Group during 2 years 7 months.

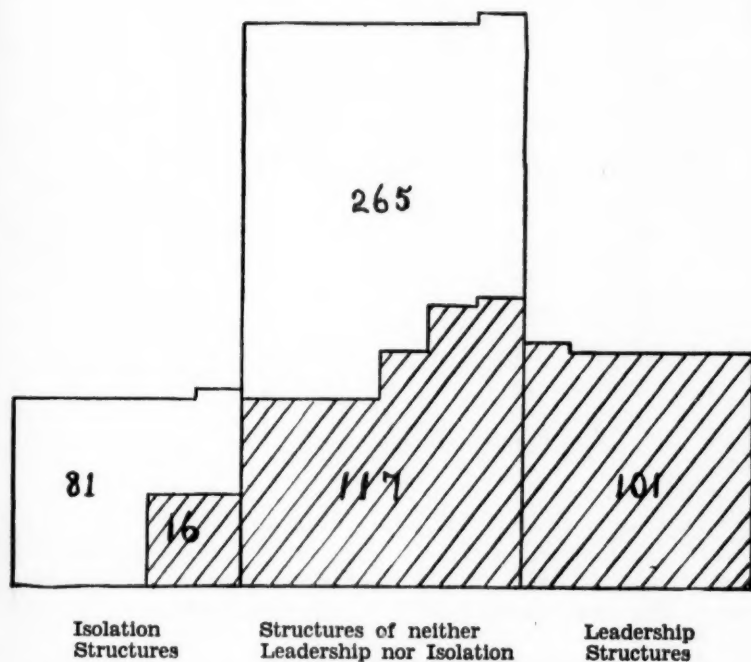
	Population	No. of Leadership Structures	No. of Isolation Structures	No. of Structures Neither of Leadership Nor Isolation
August 1934	27	7	7	13
September	27	5	5	17
November	26	7	4	15
February 1935	26	6	5	15
April	27	5	3	19
June	28	5	5	18
July	26	4	5	17
September	25	5	1	19
November	25	6	5	14
January 1936	27	7	6	14
March	27	7	8	12
April	28	6	6	16
June	28	6	5	17
August	26	5	4	17
October	25	6	6	13
December	25	7	3	15
February 1937	24	7	3	14
Totals	447	101	81	265

within the psychological organization at that moment. So it is nevertheless only strictly accurate from the point of view of study of spheres of influence to mention these kaleidoscopic rising and falling structures. There may be periods in the life of any community which, on the other hand, are so uniformly uneventful that leadership of any sort, although present, is dormant so to speak at least from the point of view of the community as a whole.

ISOLATED POSITIONS

Of the 447 psychological positions, 81 are positions of isolation. An analysis of this figure shows that although it equals 18 per cent of the total positions recorded for the group, the

FIG. I



A proportionate representation of the structures of the entire group of 70 individuals with the shaded sections indicating the structures produced by the 28 individuals who ever had a leadership structure. See also Tables II and III.

number of individuals involved in them is 38 or 54 per cent of the total population (70 persons). In point of the number of persons affected, it appears that the structure of isolation is more widespread than the structure of leadership.

Of the 28 different individuals who at one or another time during the 2 years 7 months produced leader positions, 11 at one or another time are found in isolation. Along with 27

TABLE II
Comparison of the Number of Individuals found in Leadership Structures and in Structures of Isolation
Period: 2 years 7 months
Population: 70 different individuals in the group at various times

No. of Individuals in a Leadership Structure	No. of times	Total No. Leadership Structures	No. of Individuals in an Isol. Structure	No. of times	Total No. Isol. Structures
12	1	12	23	1	23
2	2	4	3	2	6
3	3	9	4	3	12
5	4	20	5	4	20
2	6	12	1	5	5
1	8	8	1	7	7
1	9	9	1	8	8
1	10	10			
1	17	17			
Totals	28	101	38		81

Eleven Individuals in Leadership Structures contributed as follows to the total number of Structures of Isolation:

	No. of Times	Total
8	1	8
2	2	4
1	4	4
11		16

The Per Cent of Time spent in a Leadership Structure and the Per Cent of Time spent in a Structure of Isolation for each of the 70 Individuals present in the group for varying lengths of time during the period 2 years 7 months.

The difference between 100% and the sum of the two per cents, it is understood, denotes the per cent of time spent in a structure neither of isolation nor of leadership. The symbol - - indicates no per cent of time in the respective structure.

Note:

a. never having a leadership or an isolation structure	15
b. having once or more a leadership structure but never isolated...	17
c. having once or more an isolation structure but no leadership structure	27
d. of "leaders" who were once or more in a structure of isolation	11
<hr/>	
Total Population	70

Note :

No. never having a leadership or an isolation structure	15
No. having once or more a leadership structure but never isolated...	17
No. having once or more an isolation structure but no leadership structure	27
No. of "leaders" who were once or more in a structure of isolation	11
Total Population	70

*Pauline was present 96 weeks but left just before the 17th test.

other individuals who never attained a leadership structure at any time during this period are these 11 who are involved in both types of structure.

SOCIODYNAMIC EFFECT

The per cents of leadership structures and of isolation structures in the community as a whole are listed in Table IV. There is apparent only slight variability in the per cents of these structures produced over a period of time (2 years 7 months). In fact, they are fairly stable from 8 weeks to 8 weeks throughout the period studied. The consistency of these two indices suggests that these types of structures, under the condition of this experiment, are fairly constant factors in psychological organization. It seems to indicate that the sociodynamic effect operates in groups to a considerable extent even when the population is a fluctuating one; i. e., the community appears unable to sustain more than and seldom less than a certain percentage of leadership structures, regardless of the personal characteristics of the individuals constituting the population. The same factors seem to play a role in regard to the number of individuals who are not chosen, and herein classified as isolated.

The sociodynamic effect is produced by a peculiar phenomenon: a number of individuals receive more choices than they can make use of and a number of individuals less choices than

TABLE IV
Per Cent of Leadership Structures and Per Cent of Isolation Structures in the Community as a Whole During the Period 2 Years 7 Months.

Date of Test	Per Cent of Leadership Structures	Per Cent of Isolation Structures
August, 1934	20	18
September	21	16
November	22	15
February, 1935	21	19
April	22	19
June	22	18
July	24	17
September	23	15
November	26	16
January, 1936	25	18
March	23	17
April	24	17
June	22	15
August	25	16
October	23	16
December	23	14
February, 1937	22	12

they need¹⁰. The cumulative effect is a trend towards a constant number of social structures, as the number of isolated, the number of leadership structures, etc. This trend towards constancy is probably due to the hangover in the evolution of tele structures and can be held responsible for the resistance of groups against abrupt changes.

THE RATIO OF STABILITY

An analysis of the number of persons by whom the leader individuals are chosen and the sum of choices received during the total number of times in a leadership structure reveals wide variations. See Table V. We can secure a ranking of the individuals by finding the difference between these two tabulations and dividing the difference by the total number of choices received. The result might be called the "Ratio of Stability" of the social atom of the individual since it represents the per cent of persons who repeat their choices for the individual considered, or, in other words, the per cent of retention of the same persons in the nucleus around the subject. See Table VI. A true ratio would take into account the exact fluctuations of population and the size of the population by which it was possible to be chosen during the period the individual was in the group. Table VI is given simply as a method of reaching an appraisal of "stability" but the variables mentioned which may, of course, affect the results have not been eliminated.

Under these conditions, the coefficient of correlation between frequency of leadership structure and the Ratio of Stability is .88 with a PEr of .16 (Rank Difference Method). Study of Tables III and V indicates that if other variables were ruled out the relationship would still be high and positive. The explanation may be that those who are able to maintain leadership structures repeatedly are also able to a considerable extent to retain the affinity of persons choosing them as expressed by the latter's repetition of choices to them.

Table V on the following page shows choices from persons to the 28 "leader" individuals during the periods they had a leadership structure, compiled from the 17 primary sociograms covering 2 years 7 months.

¹⁰This unequal distribution does not become appreciably less unequal when a greater number of choices is allowed. Then, the tendency is to give more to those who already have many choices and few to those who already have few or none.

TABLE V

[illegible]

A simple spacial representation of the amount one leader in the psychological organization may be important compared with the other leaders is shown through the extent of overlapping among the persons choosing the respective leaders. See Fig. II.

Of the 28 individuals who are ever found in leader positions, 9 individuals¹¹ once they attain this structure continue to retain it. And those of whom this is true, appear to achieve this "permanent status" within the psychological organization within approximately 3 to 8 months after entering the group.

¹¹Not counting Ada who left almost immediately.

TABLE VI

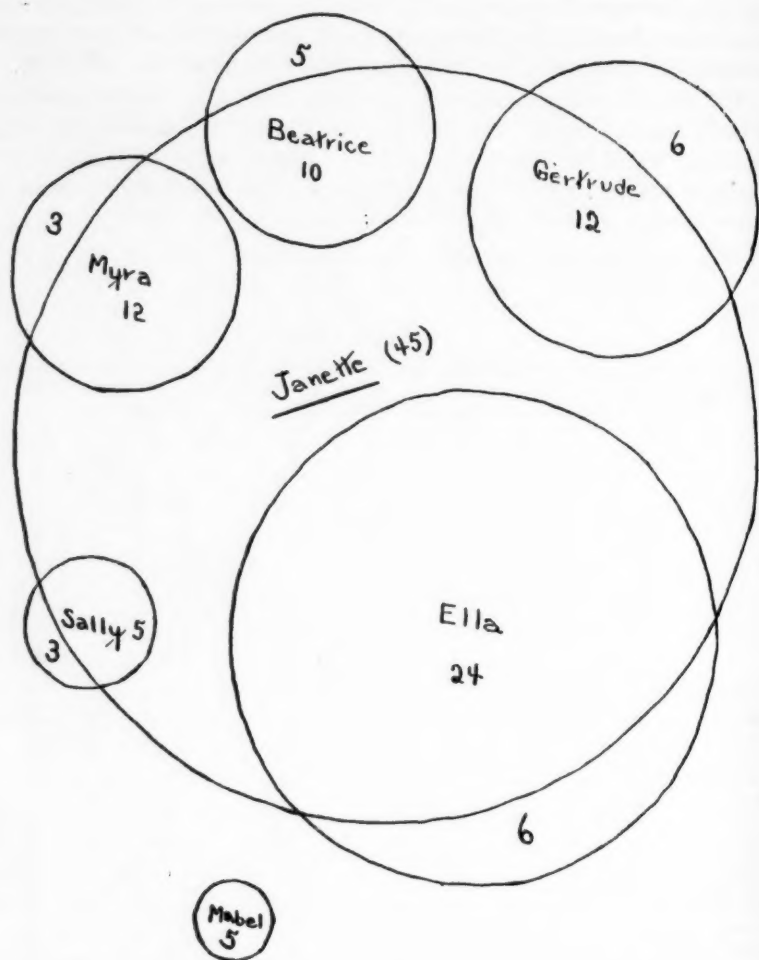
Tentative Ratios of Stability for the 16 individuals who twice or more had a leadership structure and the respective Frequency of Leadership Structure during the period 2 years 7 months*

	(1)	(2)	(3)	(4)	(5) **
	No. of Persons Chosen By	No. of Choices Received	Difference	"Ratio of Stability" Diff. ÷ by No. of Choices Received	No. of Times in a Leadership Structure
Edna	14	23	9	39.1	3
Martha	20	34	14	41.2	4
Nora	22	46	14	52.2	6
Ruth	28	63	35	55.6	10
Janette	45	141	96	68.1	17
Anna	12	23	11	47.8	4
Ella	30	67	37	55.2	9
Mildred	7	11	4	36.4	2
Myra	15	22	7	31.8	4
Pauline	19	42	23	54.8	8
Catherine	13	15	2	13.3	3
Carol	10	11	1	9.1	2
Gertrude	18	39	21	53.8	6
Evelyn	17	25	8	32.0	4
Irene	14	22	8	36.4	3
Beatrice	15	24	9	37.5	4

*Omitted from this tabulation are the 12 individuals who had a leadership structure only once since the number of choices received and the number of persons chosen by are, of course, equal in these instances.

**See p. 123 for discussion of "Ratio of Stability." Column 2 is directly related to Column 5 by virtue of the definition of leadership. Since Column 2 enters into Column 4 as the denominator, there may be a slight boosting of the correlation of Column 4 with Column 5.

FIG. II



From the (17) primary sociograms, are picked the spheres of influence (as measured by the *number of persons* from whom choices are received) of the seven individuals in leadership structures in February 1937 and shown as they overlap with that of Janette. The sphere of influence of Janette encloses 45 persons. Of these 45 persons, 24 overlap with Ella, 12 overlap with Gertrude, 10 with Beatrice, 12 with Myra, and 5 with Sally. Only Mabel's sphere is totally uninclosed by Janette's. See Table V.

CATEGORIES OF LEADERSHIP STRUCTURES

As we examine their structures, we see that, aside from their projection into time, they can be differentiated quantitatively into 3 categories:

(1) Those whose structure could be said to be *stable*, containing a relatively constant number of other persons, never fluctuating far in the capacity of retaining the same persons in the nucleus, and characterized by only *gradual* expansion or shrinkage. Examples, Janette and Pauline.

(2) Those whose structure could be said to be *unstable*, varying from 5 to almost any number of other persons, unevenly constituted in size at different times, and characterized by relatively sudden expansion and shrinkage. Example, Ella.

(3) Those whose structure could be said to be *erratic*, sometimes composed of the same individuals and again constituted of an entirely different set, a structure of the sort that leaves its past behind, apparently capable of great flexibility and inconstancy, and characterized by relatively great shifts in the qualitative composition even though the quantitative composition may not change radically. Examples, Carol and Catherine.

And then, among these sharply contrasting types of structures there appear now and then varying degrees of overlapping.

Upon further scrutinizing the 28 individuals in leadership positions, we can distinguish roughly 5 general categories:

(1) Persons who have a leadership position only once or twice and otherwise have not a distinguished position within the structure. Examples, Mildred and Betty.

(2) Persons whose leadership positions are very limited and local in their sphere of influence, bound up with a narrow part of the population. The spacial expansion is limited because those who choose them are isolated or without important chains of relations. Example, Beatrice.

(3) Persons whose leadership positions have a sphere of influence spacially very broad, enveloping a large part of the population, but in point of time are momentary. The impression made is rapidly lost as temporal development of the group's structure progresses. Example, Dorothy.

(4) Persons whose leadership positions have a wide spacial and a long temporal development. Example, Janette.

(5) The *aristo-tele* "leader" who has no direct sphere of in-

fluence large enough to constitute leadership, but who has it by indirection, that is, through direct contact with the leaders in Category (4), through whom she can influence. Example, Anna.

LEADERSHIP

Whom then should we really call leaders?

In this community, as in any other, there are individuals who produce or suggest the fundamental patterns of conduct for the community, as expressed in its various standards, its idiomatic language, its customs and ideas. However simple our community at Hudson may be considered compared to the "outside," there are certain standards and notions of "right" and "wrong," "good" and "bad," "mean" and "nice," which have been built up by the population itself and to which the staff or adult members of the community are practically outsiders.

We have observed several instances in which one or another individual among the "leaders" in this survey has actually furnished the decisive factor in the acceptance or rejection of matters crucial to situations and built or destroyed a pattern of conduct. In three instances, through their direct influence upon runaway girls the leader nucleus has forestalled the event. In two instances, they absorbed into their midst and "re-made" two girls whose behavior had been so obnoxious to the community as a whole that no other group would receive them without prejudice. In instances of the housemother's illness, on the other hand, they were haughty and authoritative in running affairs without so much as consultation with the substitute housemother. In these instances the influence was traced to the rebellious attitude of the girl (Anna) who spread aristo-tele influence among three individuals holding the strongest leader positions. An illustration of a strongly negative influence was given by a leader in another group who had been entrenched in a leader structure for over three years. The girl succeeded in so inciting her supporters that they joined with her in outright rebellion against a staff member who hitherto had been a favorite, and went so far as to cast her possessions out of the window. In this instance, the leader was able to exert so potent an influence apparently because her nucleus had been constant, selected, and retained over a period of three years in a group in which no other leader structure was allowed to develop and endure beside the all absorbing power of this traditional leader who "sent"

into rejection and isolation those who attempted to break through.

From such instances we see that the influence different individuals in different leader structures were able to exert was related to their being able to enter into and become convincing carriers of the social-cultural currents in the community, sometimes determining and directing their development. Leadership not being a single process, the study of the whole group appears necessary to see it arise and to trace its sphere of influence.

Coming back to our former question: Whom then should we really call leaders? It would appear that a more accurate stating of the problem is rather: Who then held leadership, for how long, and how wide was their sphere of potential influence?

Among the 28 girls ever holding a position of leadership, the length of time varies from 8 weeks (12 individuals) to 136 weeks of consistent maintenance of a leadership structure. And out of the total number of 101 leadership positions, 56 were contributed by 6 of the 28 girls. The 6 individuals held them for respective periods of 48 weeks (2), 64 weeks, 72 weeks, 80 weeks, and 136 weeks (Nora, Gertrude, Pauline, Ella, Ruth, and Janette). On the psychological geography of the community at large all six of these individuals have a conspicuous position in the networks and their respective spheres of influence at different periods have a range of 78 to 152 persons.

For the purpose of comparison, however, we have studied the respective spheres of influence of the 7 individuals whom we find in leadership positions in February 1937 and those also present at this period who formerly had a leadership structure, as these are the persons whose development in the psychological organization we have been able to follow during the whole period of their time in the group surveyed. To secure these data it was necessary to include the entire population in the study. Therefore the sphere of each individual can be seen against that of every other person in the community.

SPHERES OF INFLUENCE

In this community, the number of other persons with whom one can be acquainted is practically as large as the population because of the great mobility of the groups and the frequent occasions for everyone to mingle freely. Aside from the psychological currents and networks which the sociometric test makes

perceptible, there can be considered as spheres of influence the reservoirs from which these are drawn. These reservoirs may be said to consist of all the individuals who are present, so to speak, in one's social memory at a given moment, that is, all those whom one has met who have made sufficient impression to be remembered when one is confronted with the question: What people do you remember to have spoken to or who spoke to you? Such a listing of "acquaintances" has been called an individual's "Acquaintance Index."

In February 1937 we asked every girl in this community to list all the other girls in the institution (exclusive of those in her own living-together group) whom she could remember to have spoken to or who had spoken to her. Persons were not to be listed whom the subject knew only by name and with whom she had had no communication and the names listed had to be of individuals constituting the population (then 489) at the date taken. (See footnote to Table VII.) If a certain name could not be recalled but the subject was able to describe so as to identify the person meant, it was credited.

The Acquaintance Index has been previously found to be related to a number of variables including mental age, chronological age, length of time in the community, etc., and also to show compositional changes for the same individual at different times, being to this extent a measurement of the "emotional expansiveness" of the person at a given moment (1, pp. 137-141).

Our purpose, however, was to study the *spheres of influence* of the individual rather than her expansiveness.

We took the number of times an individual, under the conditions stated, is *listed by others as an acquaintance as constituting a measurement of the volume of impressions she has made upon others* with whom she has directly communicated and hence as *outlining her sphere of direct potential influence*. Whereas the condition of being long in the community is an advantage one girl may have over another who has recently arrived, this may be discounted in this *double* study of the person's Acquaintance Index and the number of times she is counted by others as an acquaintance, every person having equal opportunity on the basis of meeting others and being met by others, or making acquaintances and becoming the acquaintance of others.

TABLE VII

Range of the Sphere of Influence and the Acquaintance Volume of 467 individuals* in the community February 28, 1937.

Range	Sphere of Influence	Acquaintance Volume
175-179		
170-174	1	
165-170		
160-164	1	
155-159	1	
150-154		1
145-149	2	
140-144	3	2
135-139	1	
130-134		7
125-129	1	2
120-124	7	3
115-119	1	1
110-114	6	7
105-109	3	3
100-104	4	10
95-99	7	4
90-94	9	7
85-89	8	6
80-84	6	8
75-79	15	6
70-74	14	28
65-69	16	15
60-64	19	33
55-59	18	16
50-54	22	35
45-49	38	14
40-44	35	37
35-39	28	22
30-34	26	27
25-29	32	33
20-24	39	43
15-19	41	33
10-14	25	29
5-9	22	23
0-4	16	12
Totals	467	467

*The total population of February 28th was 489, of whom 12 were infants, and the data given by 10 girls were excluded because of errors. The names of these girls when given by others were eliminated and not counted in the respective Acquaintance Index.

The spheres of influence thus obtained are seen to differ widely (see Table VII), showing for the leader individuals a range from 14 to 97 individuals (see Table VIII). Those present in February 1937 who had once produced a leadership structure, Mabel, Gladys, Lucille, Sally, Dorothy, show a sphere respectively of 14, 18, 18, 29, and 37 other individuals outside their own group. Carol who had a leader structure twice shows a sphere of 34 and Irene who had three leader structures shows a sphere of 44. Beatrice, Evelyn, and Myra, found four times each in leader positions, show respectively spheres of 43, 60, and 75. Gertrude who had had six leader structures has a sphere of 64. Pauline who for 8 periods and Ella who for 9 periods had leader positions show each a sphere of 97 or potentially an influence covering 22 per cent of the total population, aside from the individuals in the cottage group. Janette had left the institution a few days before this phase of the data

TABLE VIII
Acquaintance Indices and Spheres of Potential Influence of
the 27 Individuals in Group February 28, 1937.

13 who had once or more a structure of leadership	Acquaintance Index	Sphere of influence	14 who had no struc- ture of leadership	Acquaintance Index	Sphere of influence
Pauline	109	97	Virginia	36	20
Ella	90	97	Elizabeth*	21	11
Myra	101	75	Marion	96	41
Gertrude	110	64	Juanita*	20	7
Evelyn	53	60	Elsie	60	28
Irene	85	44	Josephine	73	45
Beatrice	64	43	Milly	24	16
Dorothy	93	37	Nancy*	5	19
Carol	101	34	Erma	32	28
Sally	38	29	Violet	68	40
Lucille	60	18	Antoinette	65	21
Gladys	28	18	Susan	69	85
Mabel	17	14	Margaret	28	6
		630			367
			Julia	130	141

*Three girls entered after the sociometric test for February was given two days before; and Janette left on parole before the data above were taken on February 28th.

was secured so we do not have her sphere of influence as of February 1937. From previous data we would estimate it as higher than any other person's in this group.

There appear in general progressively larger spheres of influence in accordance with a progressively greater number of times the individual is found in a structure of leadership.

The finding of most interest to us, however, is the individual differences in spheres of influence from one person to another. When we consider individuals who have been in the group studied for an equal length of time and have had consequently also approximately equal opportunities to make "impressions" upon others as, for example, Pauline, Carol, and Lucille, we find spheres registering from 22 per cent of the total population to 8 per cent and 4 per cent respectively. In the instances of Gertrude, Evelyn, and Irene, who were equally long in the group, we find spheres of 14 per cent, 14 per cent, and 10 per cent respectively. From another angle, when we consider three individuals who spent an equally long time in a structure of leadership (32 weeks each), Myra, Evelyn, and Beatrice, we find their spheres of influence are 17 per cent, 14 per cent, and 10 per cent respectively.

One individual (Julia) in the group who never produced a leader structure although she was present in the group since November 1935 (72 weeks) shows a sphere of 141 other persons or 32 per cent of the population as a whole (outside her own cottage). In the psychological organization of the group she is chosen less than average and frequently chooses leaders who do not reciprocate. She has however a key position in the psychological geography of the community at large and could potentially function as a powerful link between leader individuals in the group and the general population¹².

¹²To gain an estimate of the relation of "popularity" to position in the psychological structure, we took a popularity vote in February 1937. The votes were cast for "The one I consider is most popular." No definition of "popularity" was furnished to the subjects. Julia who had not yet a leader position received 36% of the votes; regarding her, see also p. 132. On the last two tests (December and February) she was chosen only once. 24% were cast for Myra, who is recorded in a leader structure 4 times out of her 13 tests. Janette and Pauline tied with 12% each. The remaining votes were scattered.

It may be that this wide discrepancy between votes received on the basis of "popularity" and choices received on a criterion to be utilized in a life situation is wider in the group presented here than would be revealed in other groups where the history of the psychological organization was shorter or had received less traditional impress from former members upon its pattern. This "popularity vote" is but a meager tapping of the problem which

When we consider as a whole the group in which the leader structures arose (see Table VIII), we see that the combined spheres of influence of the 13 individuals who had held once or many times a leader structure amounts to 630 individuals in the community and the combined spheres of the 13 individuals who have not as yet produced a leader structure number 367 individuals when we do not include Julia who alone has a sphere of 141.

There appears to be considerable relationship between frequency of leader structure and size of the sphere of influence.

For the 13 individuals of the group who were in a leadership structure in February 1937, the coefficient of correlation (Rank Difference Method) between the number of times in such a structure and the Sphere of Influence is .94 with a PEr of .02. It indicates that in our particular group there is an extremely high relationship between the two phenomena. See Fig. 3.

The coefficient of correlation (Product-Moment Method) between the Acquaintance Volume and the Sphere of Influence for the population as a whole (467 persons) is .54 with a PEr of .02. There is evident a positive and reliable relationship. See Table VII and Fig. 4. For the particular group of 27 individuals, the coefficient of correlation (Rank Difference Method) between the Acquaintance Volume and the Sphere of Influence is .85 with a PEr of .04, indicating in this instance a very close correspondence. See Table VIII and Fig. 5.

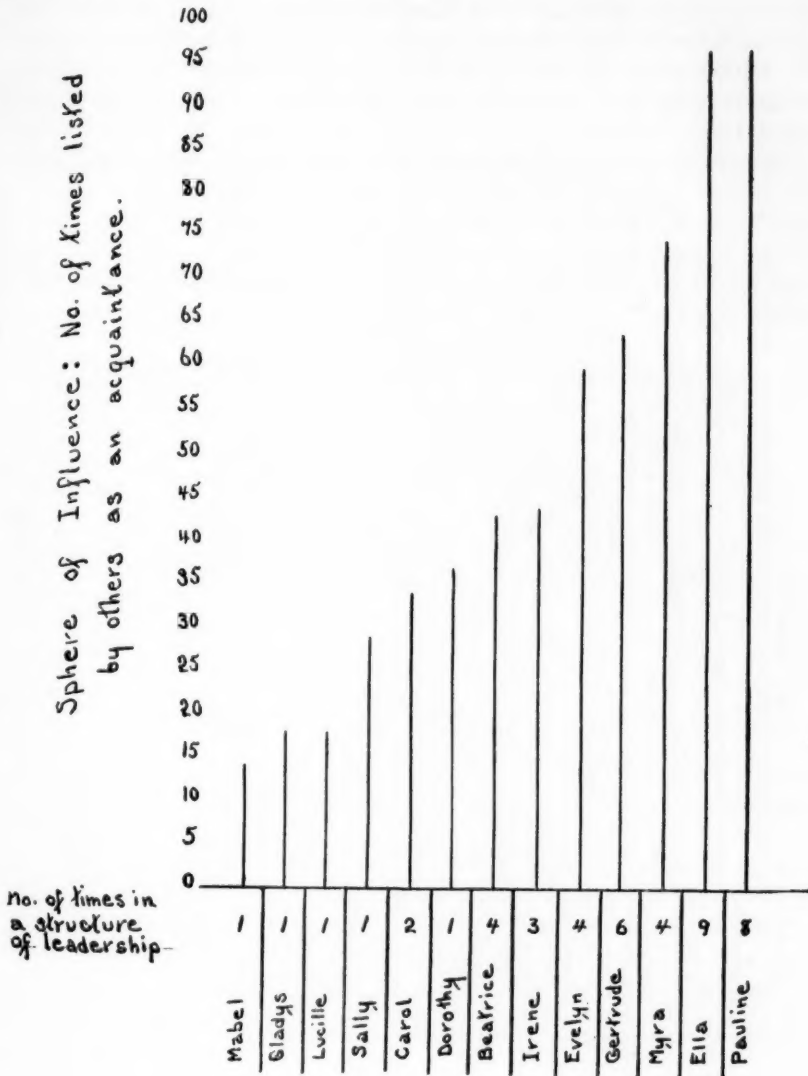
Study of Table VIII suggests also that the leader individuals apparently have greater capacity than the other members of the group to warm up to and initiate acquaintanceship. In other words, they not only in general make more impressions upon others but they also in general "register" more impressions from others, as indicated by the fact that the Acquaintance Index of these individuals is by and large also greater than that of the other members. The impression made by a leader individual appears reflected in the impression others make upon him.

merits further investigation.

It may be that the "votes" and the "choices" tapped two relatively different things. "Popularity" may be based more on qualities which appeal at distance and become flat within the relatively shorter psychological distance of the intimate group. Leadership shows itself to be in essence a reality test. The leader comes face-to-face with persons and situations and may aid in bearing or interpreting realities. He has to "pass" a proximity test with a number of crucial individuals on the basis of some criterion in life. In some respects it seems that "popular leader" is hardly a precise term.

FIG. III

Spheres of Influence of the 13 "Leader" individuals in the group in February 1937 against the No. of times each held a leadership structure.

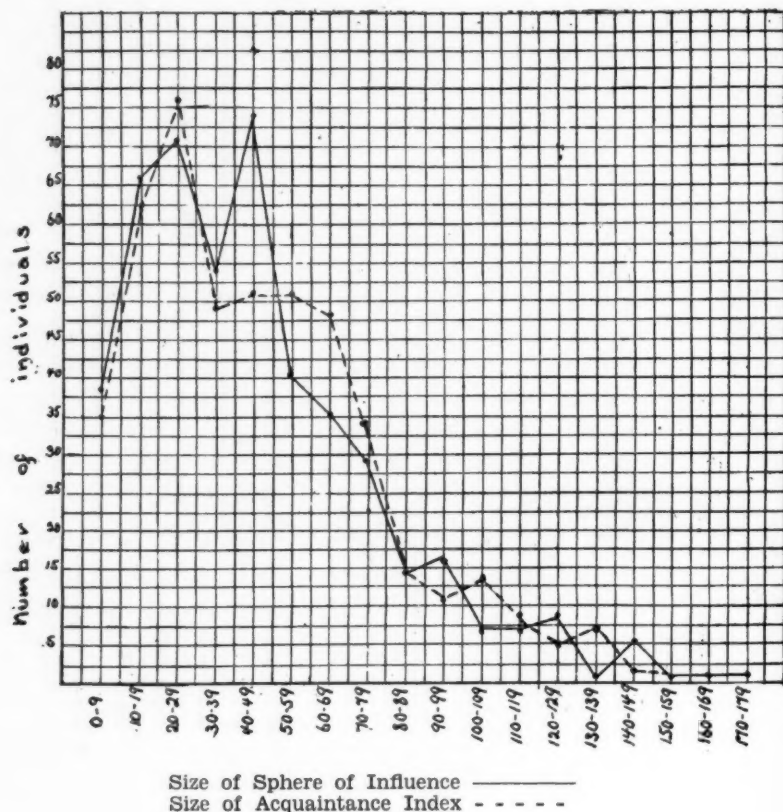


It is to be noted that there is a fairly constant rise in the volume of acquaintances progressively according to the number of times they have had a leader structure; those who have had such a position only once or twice have relatively smaller indices and those who have it frequently have relatively greater indices. Comparison of Table III with Table VIII shows that the individuals who are frequently isolated have relatively small acquaintance indices.

There is to be noted, however, such disparity between Ac-

FIG. IV

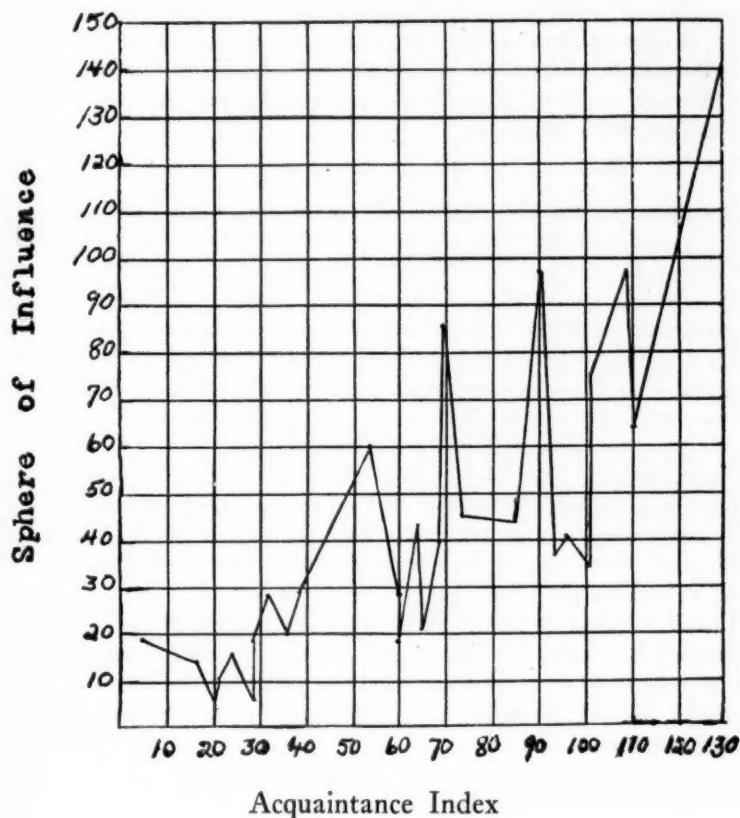
Showing the Relationship between the Range of the Sphere of Influence and the Range of the Acquaintance Index of 467 individuals in the community February 28, 1937. See Table VII.



quaintance Index and sphere of influence in so many instances that the matter appears very complex. It seems to indicate that a person may receive a lasting impression from and potentially be influenced by another without himself making such an enduring impression; and, on the other hand, that he may make more impressions than he receives from others. Impressions may not be so lasting from one individual to another although mutual impressions were made at some common point in time in the past. Examination of the composition of the same individual's Acquaintance Index with her respective sphere of potential influence shows much overlapping, that is, many of the same per-

FIG. V

Showing Relationship between Sphere of Influence and Acquaintance Index for the 27 individuals in the group February 28, 1937. See Table VIII.



sons, as we should expect, appear in each. But there is almost invariably a number of persons who appear in only one of the tabulations. A qualitative comparison shows that for the most part the impressions made and received fall within the developmental and social-psychological stratas in which both groups of individuals are. In many instances the greatest exceptions to this are the leader individuals who apparently seek out and succeed in getting into rapport with a wider range of personalities,—a range which cuts across the roughly set-up barriers that seem to exist for many in the population as a whole¹³.

To sum up, the findings show that in both qualitative and quantitative range, the spheres of influence of the individuals holding leadership positions continuously over a period of time is broader than that of others who have a less conspicuous place in the psychological organization of the group. If the population studied were more homogeneous in a social-psychological sense, it is possible that the Acquaintance Indices and the spheres of influence would often not show such wide disparities as they would have more exclusively to do with more purely sociometric and spontaneity factors.

CONCLUSIONS

It appears that the status which an individual attains in the group he enters depends upon the already existing organization developed by the membership throughout the course of its existence, which cannot be easily shifted into a different pattern of psychological currents, and depends also upon the sort of psychological position the person seeks to attain within it. The spheres of influence, temporal and spacial, aid him or deter him in the carrying out of his aims and probably his aims in turn are frequently determined, encouraged, or blunted by them. If the structure is one that suppresses his inherent tendencies, mental, social, psychological, he may require a transplanting—a re-assignment to another structure—before he can reach his optimum development or grow beyond the stage of inter-personal relations in which he is.

The fact that we find structures of isolation and structures of leadership held at different times by the same individual in the psychological organization over a period of time is an example of the dynamic character of inter-personal relations. The finding that during the 2 years 7 months of our study more

¹³The data on this matter are so voluminous to present and show so many angles that we cannot treat the subject in this report.

individuals were involved in structures of isolation than of leadership may be an indication that considerable effort on the part of the individual is necessary to weave his way into relationships of any sort. How important the attaining of mutual relations is, we see in the persistent striving for their attainment.

The structure may be too highly evolved, too far "advanced" for the person to enter it and participate. We saw in the instance of Mabel one who had to learn from the "bottom," for whom the more rudimentary sections of the structure offered more of a medium to learn the elementary processes of getting into interrelationships. The highly organized, temporally old structures were seemingly unavailable to her, unapproachable for relationships. For Anna, on the other hand, these same rudimentary "unformed" sections of the structure offered no avenue for penetration. Such structures might be said to be likewise unavailable and unapproachable to Anna in *her* stage of social-psychological development. The tele is not released except in the structures already built into hierarchial proportions and complexity and these she enters from the "top."

The highly developed structures apparently can be hardly "visible," hardly be felt, from below by the members in the rudimentary outskirts, and perhaps the "bottom" may be as hardly understood by those at the pinnacle. By placing an individual in a group whose structure will not permit of his entering psychologically very little seems won. It is quite possible that long isolation over a period of years produces a retarding effect. It appears as if we cannot force or teach such development by artificial stimulation such as a highly organized "unavailable" structure, but that we can make the setting one which makes it possible or at least not impossible.

While there appear to be individuals who more readily than others work their way up to leadership, leadership itself appears to be a process of choosing as well as being chosen. To choose accurately, tellingly, precisely in the realm where there is want for one, and to do so *spontaneously* is to have considerable feeling or sense for *clicking*, upon whatever criterion the choosing be based. Simply to be chosen, when this is by those whom you do not choose, is hardly much compensation. On the other hand, the fact that the psychological structure shows duration and often changes but slowly on the whole may have significance for the "training" of the tele relations, perhaps disciplining them into some stability and intensity in the winning of mutual-

ity with the persons with whom one wishes to have them and providing the necessity of exertion to retain them once they are won.

There appears to be a great difference between the tele which is available in any group and that actually expended. In any group there may be great reserves of tele which the structure in which the members find themselves does not release. On the other hand, there apparently are individuals who are very limited in their capacity to participate in inter-personal tele relations and for whom certain structures are inappropriate. This may account for inability, all other things considered, to stay in a leadership position once it is won. They may only occasionally show themselves able to warm up to a wide variety or large number of persons, and this only under particular circumstances as, for instance, that which powerful aristo-tele exert upon them. When the circumstance changes, the emotional-social tele may likewise shrink back to its former bounds. An optimum environment for the production of tele is so important because the tele apparently depend upon feeling and spontaneity factors very important for development.

How much elasticity there is in the tele-capacity of individuals we are not yet on the way to know even within approximate limits. But the indications of the individual differences are immense, and that they cannot be estimated by a sociometric study of the individual in only one community, even through a long series of studies covering the temporal and spacial aspects of its projection. There needs to be a study of the initial beginnings carried on right through the years, just as Gesell has done for patterns of postural and motor control. Social-psychological coordination with the human environment, integration into the manifold structures of its psychological organization, is a gradually developed function also measurable in some form through painstaking research.

The leader individuals in our study show their caliber, if they are destined to become leaders within the group, within 3 to 8 months of their residence. One indication that they may eventually rise to a position of leadership is the direction in which they choose. Their spontaneous choosing of leader persons, even though they meet with no reciprocation or encouragement, is not found to be characteristic of the ordinary newcomer.

Occasionally the newcomers will seek a leader, but by and large they choose close to their own social level, nearer to a

possible reciprocation in fact. They are not so "impudent" in their choosing. They are "nobodies" and they seek out other nobodies or near-nobodies within the structure, but the potential leader, while he too is a nobody is hardly to be discouraged although he may have to work months and months to divert into his direction the already channeled tele among the important persons of the group. He may persistently refuse to be satisfied with less even under definite rebuffs. He also frequently avoids those who have little to give in bolstering a climb into a psychologically key position, just as the person who wants to revolt against the prevailing social currents feels out those who will receive with equanimity the proposal and aid in fulfilling it. Neither one can afford to be wasteful in the exercise of his choices. Neither one breaks through the already knitted structure of the group without gradually and steadily laying the groundwork among possible allies in the respective plans. The psychological structure appears like a crushing or supporting bulwark.

Sometimes an individual climbs to leadership through the actual or impending exit of leaders and rapidly falls out of this control. Those who apparently ascend through the exigencies of the situation alone do not long remain in ascendance. The void made by the outgoing leader is coveted by others eager to fill it and for the time being there is often much struggle until another "natural" leader crystallizes the affinities within the shattered structure of psychological organization. But leadership appears to be not easily transferred and sometimes there is prolonged shifting before this last development is brought about. The study of a series of charts is very disillusioning to an adventurer for this reason.

The kaleidoscopic nature of psychological organization given by a short-time view is not so kaleidoscopic when we follow it over a period of time. While a person may rise from isolation to a position of leadership (apparently) as if overnight, he may as easily fall out of it. It may have been built by a momentary happening in which he played a role sufficient to cause many for that moment to seek him. As the event passes into history and he is seen in perspective, he sinks again as quickly into the position normal to him. Again, he may be forced into a temporary isolation before winning back his characteristic position—it is as if the persons considered that they had been misled.

Through the survey of a series of sociometric charts, we see

that growth into a durable integrated position is far from a sudden, chance phenomenon. It seems to require persistent sincere output of effort, but once won is apparently equally difficult to destroy. A structure of leadership can be gradually overshadowed by the greater dynamic attraction of an uprising leader, but it cannot be cut off easily. The transfer of relations to another "leader" appears like an unheralded necessity.

To get into a leader position appears to require considerable exertion as shown by the rapidity of decline when the burden of leadership is placed on one unfitted to retain it. The "freak" leader may even fall into isolation and rejection before returning to a position more fitting to his capacity. The unexpansive person can make the necessary effort, it appears, only under particularly inspiring circumstances and then the period is short in which this "mood" suffices to support him. Sometimes the attention of a key individual seems to inspire the rise. Again, the quality and capacity of a person may be evident to some key individual almost at once upon his entrance into the group, and the person is readily built into an integral position.

The question arises, all things considered, how long can leadership be endured? Does it wear a person out? From all our data the answer so far is that apparently it does not. If a person is strongly enough equipped to become a leader, he is, it appears indicated, also strong enough to retain his position over a long period, in fact even for the full length of his stay in the given group. After a person has reached a persisting pattern of leadership, or for that matter any other position characteristic for him which registers his fullest growth within that psychological organization in which he has come to it, there seems to be comparatively little change in this position. If, after a year, for instance, he comes from a position of isolation to one of moderate security and acceptance, choosing and chosen by three or four persons, he does not after this period, however long he remains in this group, ever again become practically isolated nor ever enter into a greatly different position. However, if it is characteristic for him to require an aristo-tele relationship in order to maintain his position, his position will suffer the effects of its loss had he been largely dependent upon it. Ordinarily, however, the psychological currents seem hard to divert and if one once "belongs" to a particular network, it takes unusual, unforeseeable events to dislodge one from his position within them.

Superiority of one sort or another does not appear to assure the holding of leadership. There may be so few points of contact that the person remains a stranger to the mass of the population, attractive perhaps only to a number of leaders and to other individuals who are also psychologically distant from the general group. Nevertheless in the course of time, such a person working from the top down, through the leader individuals, may eventually affect the structure and ideology of the group.

Although ours is a relatively small section of population including but a few hundred persons, the study of the psychological structures built up by them implies how enormous must be the complexities of psychological structure in any large community. Their possible variations are apparently so great that a person living in the midst of them can scarcely foresee the destiny that lives ahead for him.

Acknowledgements:

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AN EXAMINATION OF THE J-CURVE HYPOTHESIS BASED ON PUNCTUALITY DISTRIBUTIONS

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INTRODUCTION

Although the normal probability curve has been a central idea in much of our psychological thinking, it does not necessarily follow that no other type of frequency surface may be obtained legitimately. The supposition that nature, in every respect, is constructed on a normal probability basis has never been conclusively demonstrated, nor need we expect that it ever will. Thorndike (9) stressed this fact years ago when he wrote: "The form of distribution then is purely a secondary result of a trait's causation. There is no typical form or true form. There is nothing arbitrary or mysterious about variability which makes the so-called normal type of distribution a necessity, or any more rational than any other sort or even any more to be expected on *a priori* grounds. Nature does not abhor irregular distributions" (pp. 88-89). More recently, Garrett (6) has reiterated this idea when he stated: "Theoretically, there is no real reason why distributions should always be normal" (p. 88). These quotations do not imply, however, that there are no typical curves. Thorndike himself suggested, in addition to the normal probability curve which he called Form A, two other frequency surfaces which he designated Form C and Form D. Other types which may be added are the platykurtic, leptokurtic, et cetera. Kelley (7) has described a number of Pearson's "types" in mathematical terms.

In this paper we are not interested in either the variety or the number of type-curves. Our purpose is to inquire whether certain personality-trait data distribute themselves in any particular manner.

F. H. Allport (1, 2, 3) has suggested that in institutional behavior, when a *telic continuum* is used, a "J-curve" is obtained, and when an empirical or *non-telic continuum* is employed, a "double J-curve" is obtained. In the pages which follow, we shall carefully examine Allport's empirical data, as well as other similar measures which are available, to see if his suggestions are correct.

THE J-CURVE

Allport is to be commended for collecting behavior-data in various areas of life, and for using only such observations as were made in actual life-situations, rather than resorting to pencil-and-paper methods. We are realizing more and more that only such objective data are actually vital. Owing to the nature of some of the behavior which Allport and his colleagues observed, only rough measures of differences between responses of individuals could be used. The studied behavior he describes as telic or purposive and as occurring in different degrees of fulfillment. Therefore his data are distributed along a *telic continuum*, concerning which he says: "This is a continuum of purpose. It deals with the question of 'how much of' (or how fully) a certain purposive, meaningful, prescribed act is carried out in practice." (3, pp. 142-143)

The data which he presents are drawn from three areas of life: political, economic, and religious. Four sets of data are presented under the heading "political," one of which deals with motorists' responses to a boulevard stop sign. The maximum degree of fulfillment is coming to a complete stop; lesser degrees of fulfillment are designated as "very slow," "slightly slow," and "same speed." Under the heading "economic," three sets of data are presented, a sample of which is the punctuality of plant employees. "On time" is the maximum degree of fulfillment, and lesser degrees of fulfillment are indicated by successive half-hours of lateness. Six sets of data on religious behavior are given. One of these is the degree of genuflection in a Catholic church. The purpose was fulfilled completely when the worshipper "kneeled completely," it was only partly fulfilled if he "kneeled halfway," and was fulfilled least if he "did not kneel."

It is plain, from the histograms which he presents¹ (pp. 144-147) that, on the whole, a far larger percentage of people show complete fulfillment of the purpose of the institution than show lesser degrees of fulfillment. Also the more remote from completion the degree of fulfillment is the fewer cases fall into the category. This fact, then, leads him to conclude that when a telic continuum is used a J-curve, or a curve of "positive acceleration," results. No one, I believe, would be inclined to question this fact, but one might question a condition which he de-

¹All further citations will be made from Allport's article: "The J-Curve Hypothesis of Conforming Behavior" (3).

scribes after examining his data, namely, that in any J-curve 50 per cent of the obtained data must fall in the category indicating *complete fulfillment of purpose*².

In the first part of his article, Allport makes the following statement: "The curve which is here hypothetically suggested, if one follows it upward from its lower extremity on the x axis, is one of *positive acceleration*" (p. 148). After presenting all of his curves, he concludes: "It seems justifiable, therefore, to accept the 50-per-cent limit as our tentative criterion for requisite conformity" (p. 160). It appears, then, that the two terms "J-curve" and "curve of positive acceleration" are not the same, as the first statement might lead one to believe; but rather that a J-curve is one with a certain amount of positive acceleration. Let us see if it is possible to describe Allport's J-curve more accurately. Since a curve of positive acceleration is obtained by placing an arithmetic progression along the abscissa (in this case the arithmetic progression is one, *i. e.* one category) and a geometric progression along the ordinate, what we must know is the geometric progression or ratio (r) which is necessary in order that the value of the last term of our formula equals 50 per cent of the total number. If y is the frequency at any point on the abscissa, and r is the ratio, then the general formula for a curve of positive acceleration is written³:

$$y + yr + yr^2 + yr^3 + yr^4 + \dots + yr^{(n-1)}$$

Since N equals the sum of these terms, Allport's requirements would be fulfilled if:

$$\frac{yr^{(n-1)}}{N} = .50$$

Suppose that n equals 5 and r equals 2, then the formula, $y + 2y + 4y + 8y + 16y$, will describe a curve of positive acceleration. Now, if the last term, $16y$, is divided by the sum of the five terms, $31y$, the result is 51.6 per cent. Therefore, if r equals 2, the ratio of the last term to the total frequency is approximately 50 per cent. If r is greater than 2, the ratio is greater than 50 per cent; if it is between 1 and 2, it is less than 50 per cent. Thus Allport might have defined his J-curve as a curve of positive acceleration in which r equals, or is greater

²Allport points out nowhere that in some of his curves this 50 per cent represents 50 per cent of the subjects observed and in others 50 per cent of the observations made. This distinction should be clearly made, for the two are by no means the same.

³The extent of the arithmetic progression is indicated by n .

than, 2. It still is not clear why the ratio chosen should be two rather than any other number, aside from the fact that in most of his curves (all but two) the ratio was two or greater. He offers no reason for choosing 50 per cent rather than 75, or 40 or any other percentage. It appears to the present writer that if data, such as Allport presents, distribute themselves along a curve of positive acceleration, then we have found a general principle of social behavior, and any assumptions as to the degree of positive acceleration are purely arbitrary and superfluous.

THE DOUBLE-J-CURVE

Again Allport points out that when behavior data are distributed on an empirical, non-telic continuum a double-J-curve, *i. e.* a curve having positive acceleration of both slopes, results. This, he believes, is due to the pressures toward conformity which operate in institutional behavior, and which force people to act more alike than they do in the absence of such pressures. Thus he concludes that the "conformity curve is leptokurtic."

In this paper we are not interested in the analysis of the pressures which are present in institutional behavior, but we are concerned with the type of distribution which results. Our purpose is to examine critically Allport's main hypothesis, namely, that in any field of conforming behavior the distribution of measures along a non-telic continuum is leptokurtic. We shall examine only his punctuality data (Allport's curves 5A, 6A, 12A), first because he asserts that these are double-J-curves; and secondly, because the writer has also obtained punctuality data (4, 5) in a number of situations which may be compared with Allport's data.

Two of Allport's curves are based on punch-clock data obtained for plant employees, and are presented as the frequency of earliness and lateness during successive ten-minute periods. The third curve represents the time of arrival of church-goers on a single Sunday. The present writer (4) has recently published punctuality distributions based on the behavior of college students in six types of situations, punctuality in eight o'clock classes, commons (breakfast), appointments, extra-curricular activities, vesper services, and entertainments. Thus we have nine punctuality curves available for analysis; three of which were secured by Allport, and six by Dudycha. Do they bear out Allport's hypothesis? Are they leptokurtic?

Nowhere does Allport present a statistical analysis of his curves which would prove that they are of one type or another. Apparently he merely inspected them and concluded that since they *appear* to be leptokurtic, they *must* be leptokurtic. If one reflects a moment he will soon appreciate that merely inspecting a curve is not enough; appearances may be deceiving. Even a normal curve may be made to appear leptokurtic by manipulating the size of the divisions on the abscissa. A glance at Figure 1 quickly proves this. Both curves are *normal* distributions of 1,000 cases; the difference between them is that the base line of the one frequency surface is three times the length of the other. Yet the inner-distribution *appears leptokurtic*, and the other *appears normal*. Thus inspection is not an adequate method of determining curve-types. Of course, this does not demonstrate that Allport's curves are or are not leptokurtic, it merely suggests that there is little certainty in such inspection. We must find a better way to approach this problem. Two methods of attack may be used, namely, the graphic and statistical.

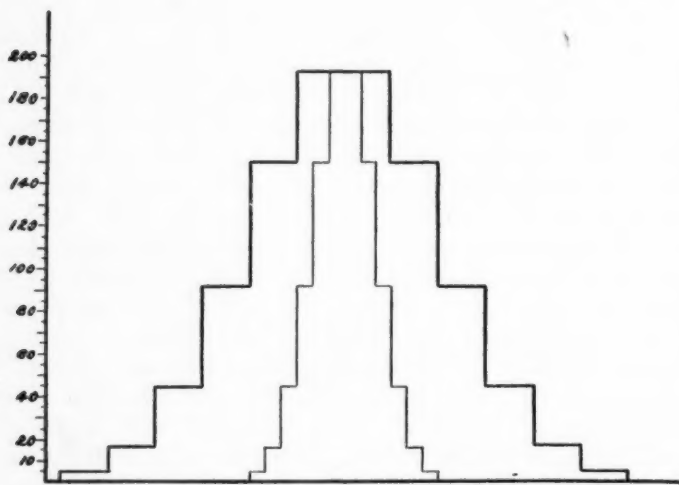


FIG. 1

Normal distribution of 1000 cases drawn with different bases. The two distributions are identical except that the base line of one is drawn three times the length of the other though the numerical range covered is the same.

GRAPHIC EVIDENCE

Since Allport employs inspection as a method for determining curve-type, let us extend his method and see what we find. The heavy-line curves of Figures 2, 3 and 4 represent Allport's three *obtained* punctuality distributions; the light-lined curves, in each of these figures, represent the *obtained area distributed normally*, with the base lines being approximately equal to those of the obtained distributions. By inspection, Figure 2 appears to be somewhat skewed from what it would have been if that same number of observations had been distributed normally. Owing to the nature of Allport's data presented in Figure 3, only the left half of his distribution could be taken and the normal distribution for that frequency computed. When this is done, we observe that the obtained curve coincides almost exactly with the normal curve. In the case of the punctuality of the church-goers (Figure 4), the obtained curve resembles the normal curve rather closely.

Next we shall turn to the present writer's punctuality curves.

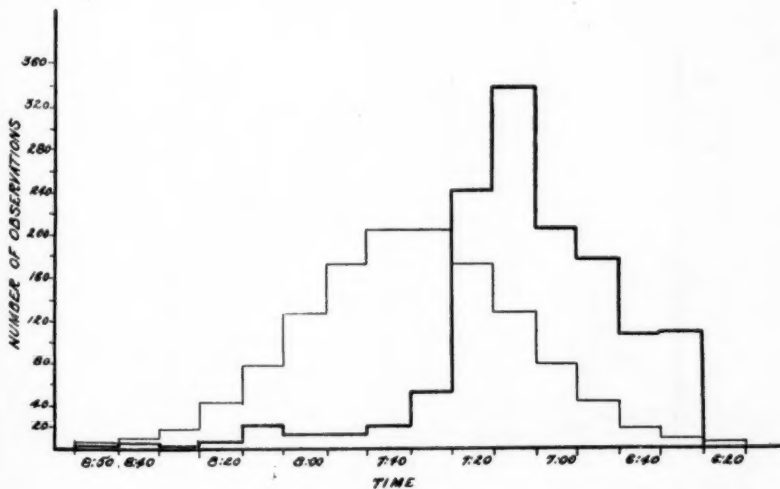


FIG. 2

Allport's distribution of the earliness and lateness of plant employees. The heavy line is the obtained distribution; the light line is a normal distribution with the same area and base as that of the obtained distribution.

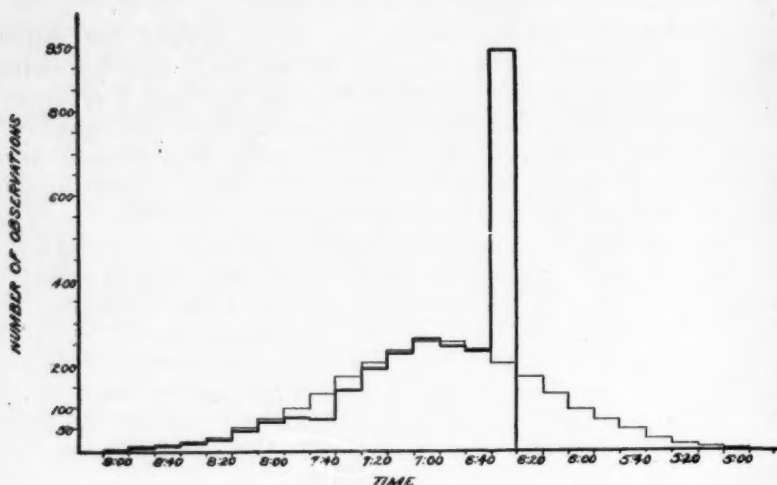


FIG. 3

Allport's second distribution of the punctuality of plant employees. The heavy line represents the obtained distribution, the light line the comparable normal distribution.

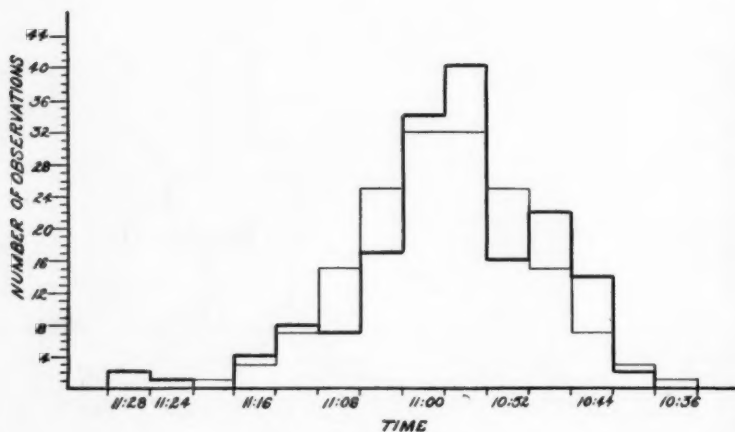


FIG. 4

Allport's distribution of the punctuality of church-goers. The heavy line represents the obtained distribution, the light line the comparable normal distribution.

The first (Figure 5) includes 7232 observations on 211 students coming to eight o'clock classes. The heavy line represents the obtained distributions, and the other two curves represent normal distributions with areas equal to that of the obtained distribution. The solid light-line curve has a base equal to that of the obtained distribution; the broken-line figure has a shorter base, but an area equal to that of the obtained curve with the extreme-left portion of the curve omitted, i. e. beyond 20 minutes. Thus we see that even though we drop a few of the extreme cases, and shorten our base line, the obtained curve still appears to be leptokurtic. The last curve (Figure 6), presents another set of data including 3427 observations on 110 students coming to Commons for breakfast. Here again we do not observe a marked difference between the obtained and normal curves, and the obtained curve certainly does not appear to be leptokurtic. Other curves which the writer has obtained (4) could be presented in a similar manner, but these should suffice to indicate that the mere inspection of an obtained curve is not

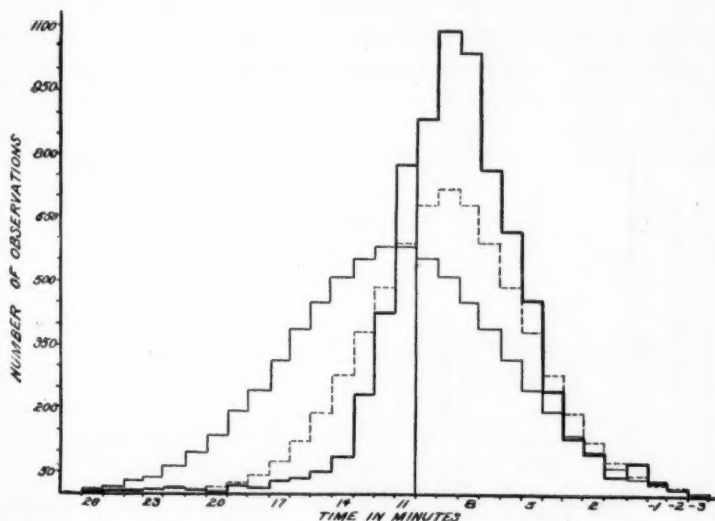


FIG. 5

Distribution of observations in eight o'clock classes. The heavy line represents the obtained distribution; the light solid-line represents a normal distribution with the base equal to that of the obtained distribution, and the broken-line curve is a normal distribution with a shorter base and a somewhat smaller area. All observations to the left of the vertical line (at ten minutes) in the obtained distribution represent lateness.

sufficient, but that a comparison between an obtained curve and the same frequency distributed normally may shed a little light on the problem of curve-type. In spite of these comparisons, we are not yet ready to pass judgment on Allport's hypothesis.

STATISTICAL EVIDENCE

The final and most exact method of determining curve-type is by statistical analysis. Two methods may be used. First, Pearson's long and laborious method of determining the moments of the frequency distribution may be used (which is very clearly presented by Mills), (8, pp. 528-532). According to this method the criteria of a normal curve are: $B_1=0$, $B_2=3$, $K_2=0$. The other, a simpler and more summary method, and the one used here, determines the measure of kurtosis based on percentiles. When the populations are large, as those presented in this paper are, Kelley recommends that this method may be given preference over the first because of its simplicity. The formulas taken from Kelley (7, p. 77) are⁴:

$$K_u = \frac{Q}{D} \quad \text{S.D.}_{K_u} = \frac{.27779}{\sqrt{N}}$$

If $K_u = .26315$, the distribution is *mesokurtic* or normal; if K_u is $> .26315$, it is *platykurtic*, and if K_u is $< .26315$, it is

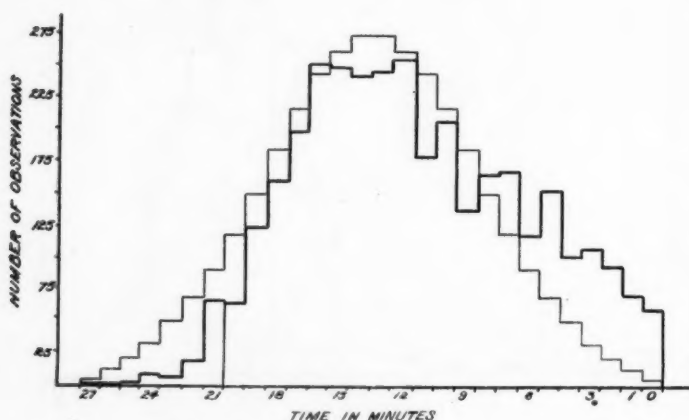


FIG. 6

Distribution of observations in commons. The heavy line represents the obtained distribution; the light line represents a normal distribution of the same data. All observations to the left of the vertical line (at twenty minutes) in the obtained distribution represent lateness.

⁴ $D = P_{.90} - P_{.10}$ or is the 10-90 percentile range. Q is the inter-quartile range.

leptokurtic. Since we can compute the standard error of kurtosis, we are able to determine whether all or any of our obtained distributions are leptokurtic as Allport assumes they are.

Table I presents the data for two of Allport's and six of Dudycha's curves⁵. In the first column of Table I the kurtosis values are presented; the second column presents the difference between the obtained Ku and the value .26315; the third presents the standard error of kurtosis; the fourth the critical ratios obtained; the fifth the chances in one hundred that the difference is significant; and the last indicates the type form of each curve. If the Ku of any curve deviates from the value .26315 by less than three standard errors, that curve may be considered normal; if it deviates by more than three standard errors, it is either leptokurtic or platykurtic depending on the direction of the deviation. Thus the last column of Table I gives the answer to the question raised in this paper. Four of the eight curves analyzed do not deviate reliably from normal, two are platykurtic and two are leptokurtic. If we add Allport's third curve (not analyzed statistically) which coincided almost perfectly with the normal curve, then we have five curves which can be considered normal. This evidence certainly does not support Allport's assumption that punctuality distributions are leptokurtic. Note carefully that one of Allport's curves is statistically normal; a second is normal by inspection (comparing it with its normal frequency surface), and the third is statistically

TABLE I

	Ku	Diff.	S. D _{Ku}	D S. D _{Ku}	Chances in 100	Curve type ^a
Plant employees (Allport) .....	.26569	.00254	.00744	.34	64	N
Church-goers (Allport) .....	.46899	.20584	.0215	9.57	100	P
8 o'clock classes (Dudycha) .....	.25795	-.00520	.0032	1.63	94	N
Commons (Dudycha) .....	.28219	.01904	.00475	3.97	100	P
Appointments (Dudycha) .....	.22077	-.04238	.0089	4.76	100	L
Extra-curricular (Dudycha) .....	.23908	-.02407	.0079	3.05	100	L
Vesper service (Dudycha) .....	.24295	-.02020	.00868	2.32	99	N
Entertainments (Dudycha) .....	.29387	.03072	.0726	.42	65	N

⁵One of Allport's punctuality distributions had to be omitted from the Table because the ten-percentile could not be determined.

^aN = Normal, P = Platykurtic, L = Leptokurtic.

platykurtic. Thus we find no one of his punctuality curves to be leptokurtic, as he affirms they are. Since five out of nine curves may be considered normal, and since two are platykurtic and only two are leptokurtic, the only logical conclusion which may be drawn is: *punctuality distributions may best be described by normal curves.*

CONCLUSIONS

- no → 1. When behavior data are distributed along a telic continuum, a J-curve may be obtained, but the degree of its positive acceleration will vary.
2. Behavior data, such as punctuality in various types of situations, are distributed normally or symmetrically around a mean more often than not.
3. Allport's double-J-curve hypothesis, namely, that behavior data distributed along a non-telic continuum give a curve in which both slopes are positively accelerated, as applied to punctuality data is hardly tenable since only a small part of the obtained data supports the hypothesis.

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PUBLIC OPINION POLLS

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Public interest in straw polls reached a new height in the election of 1936. They were followed, praised, and criticized by politicians, editors, market research organizations, and lay voters. Not only are the polls assuming increasing importance on the American political and social scene; they are also demanding more and more attention from the social scientist. The widespread popular preoccupation with the prediction of events is itself a social phenomenon worthy of study. The techniques of the polls call for methodological analyses and comparisons. Furthermore the polls have already gathered significant data concerning the relationships of social attitudes to other variables. In brief, the causes, effects, methods, and value of the polls are all problems to be scrutinized by the social psychologist.

REASONS FOR THE EXISTENCE OF STRAW POLLS

The existence of straw polls can be ascribed to five factors: (1) their value to politicians in the conduct of a campaign, (2) their use as a propaganda device, (3) the common interest among people in the opinions of their fellows, (4) the common need to know about the future, and (5) the commercial gain in satisfying these needs.

Long before magazines and newspapers bombarded people with straw ballots, political parties checked up a number of times during a campaign on the trend of popular sentiment. These early surveys were comparatively crude. Precinct representatives reported to ward or county leaders the number of votes they thought could be delivered on election day. Today the polling technique of political parties is highly refined and extensively used. Under Emil Hurja the Democratic National Committee has developed an elaborate machine, adapted to party needs, for measuring the public pulse.

A second reason for the development of polls is their usefulness as propaganda instruments. The political form of the *impression of universality* is known as the *band-wagon effect*. In order to influence voters to climb on the band-wagon, organizations and periodicals are eager to publicize the result of a straw poll favorable to their candidates. The greater the number of

ballots in the straw vote, the greater, it is hoped, is the effect of the suggestion. Clever manipulation of spacing, headlines, type, and percentages is also employed to urge the voter on the fence not to waste his ballot by voting for a minority candidate or a "loser." During the 1936 campaign, for example, the *New York Herald Tribune* devoted as much space to the *Literary Digest* results as to those of the American Institute of Public Opinion for which it was paying. The Hearst papers hid their own poll (Crossley's Survey) deep in the back pages while featuring the smaller pro-Republican *Farm Journal* poll as well as the *Digest's*. Whether or not there is actually a band-wagon effect is still an open question. But whether or not certain editors hope there is a band-wagon effect is not an open question.

A third reason for the existence of polls is the common interest in the feeling and opinions of one's fellows. This goes back to early training. Children are reared in a social world in which they soon learn to take account of the presence of others. Our system of mass education exaggerates sensitivity to the ideas and actions of colleagues. Even when we do not follow majority opinion, we are generally curious about it. Thus, while "news" has traditionally been conceived of as news of events, it is becoming increasingly apparent that there is also a news of ideas and opinions.

Another basis for the growth of straw polls is the universal interest in the outcome of events. This interest is removed more in degree than in kind from the absorption of primitive peoples in divination ceremonies. Obviously, man's constant trial-and-error attempts at adjustment orient him toward the future. In seizing upon a portent of what is to come, he feels he has some control over impending occurrences. The action of consulting an oracle, participating in a divining ritual, or taking stock of a straw poll releases the emotional tension of an unsatisfied need and so partially appeases it. In other words, the present, in itself, is chaotic and incomplete. It takes on meaning and significance through its relation either to the past or to the future. The less the individual is able to interpret immediate environmental forces by some internal frame of reference, the more desperate is his search for some external frame of reference (18).

Today most men have lost many of the old beliefs and superstitions. Their faith in the medicine man, the prophet, and the fortune teller is gone. But their curiosity remains in a world

becoming increasingly complex. They are baffled and awed by science. Public opinion polls are enshrouded in mystery for the average man, but he feels vaguely that they employ complicated statistical and scientific "techniques." Therefore, they satisfy his modern realism and his ancient curiosity and at the same time receive the blessing of his newest household god—science.

Allied with this psychological need for the control of the future is the American interest in the outcome of competitive events. Our political campaigns are similar to such sporting contests as horse races and football games, in that they serve the social function of diverting people from the more serious problems of existence. People discuss the probable victor and his margin of victory. Emotional identification with one side or another further intensifies interest in the conflict. Wagers are laid and the election becomes an absorbing public spectacle. And it is not impossible that straw-vote returns are occasionally jockeyed to make the political race more exciting.

Finally, the existence of polls is maintained by the commercial exploitation of these popular interests. A common desire can generally be kept alive and increased by individuals who profit by meeting the desire. Medicine men, priests, astrologers, divining ceremonies, and institutionalized religions have at some time in history thrived on the need to learn about the future. In our day, newspapers and magazines, ever alert to possible circulation increases, have conducted and published the results of straw polls. The news value of polls has become so great that over 60 newspapers in the country buy "America Speaks" from the American Institute of Public Opinion and feature the Institute's data on social and political opinions in Sunday editions. *Fortune* has hired a market research bureau to tap public opinion for quarterly publication in the magazine.

A CLASSIFICATION OF POLLS

Straw polls can be classified according to the techniques they employ. Their methods reduce essentially to some form of a sampling procedure. Ballots gathered from a portion of the voting population are the basis for the prediction of how the total electorate will vote. There are essentially only two sound ways of using a sampling procedure to produce a miniature group representative of the larger group from which it comes. One method is to sample the population in a truly random manner, hence its name, the *random sample*. Every tenth or every

fiftieth case may be taken, the selection of the cases being based upon some chance device such as shuffling cards. In this way the method of selection in itself gives no type of unit a better chance of appearing in the sample than any other type of unit.

The other method, that of the *weighted sample* or *quota control*, involves the selection of cases not according to chance but according to significant factors which determine the nature of the total population. The random sample permits these factors the same chances of influencing the composition of the miniature population as they had in determining the total population. In the weighted sample a search is made for these factors and the sample is deliberately built upon the basis of their relative importance. The weighted sample is thus a short-cut device to give a representative cross-section of the population and has many of the advantages and disadvantages of short-cuts.

How, then, are the straw polls of 1936 to be characterized on the basis of the sampling methods employed? Not one of the polls used the random-sample method. The *Literary Digest* relied neither upon the random nor the weighted sample. Its method of polling the population was determined by other considerations than those of true sampling. The technique of the weighted sample, or quota control, was followed by the American Institute of Public Opinion directed by Dr. George Gallup and by Archibald Crossley's Survey published by the Hearst newspapers. In a sense, too, *Fortune* used the weighted sample but with sufficient variations in technique to justify separate consideration. The polls may thus be classified as the *incidental sample* (the *Literary Digest*), the *weighted sample* (the Institute and Crossley polls), and the *psychological poll* (*Fortune*).

The *incidental* nature of the *Literary Digest's* sampling procedure appears when its method of selecting cases is considered. The *Digest* sent its ballots to names taken largely from readily accessible sources such as telephone books and automobile registration lists. As a commercial magazine the *Digest* was interested in sending its ballots to potential subscribers at low cost. Instance the host of advertising material included with the ballots. The telephone and automobile lists were well suited to this commercial purpose. They saved the time and expense of procuring more representative lists of the voting population and they constituted a selected group of possible magazine purchasers. From the very start, therefore, the poll was loaded toward the upper income level. The people polled were really

selected on the basis of factors irrelevant to sampling procedure. The administrators of the *Digest* poll apparently put their faith in its predictive value upon the sheer size of the sample. Ten million ballots were sent out in the last campaign, 2,350,176 were returned. But mere numbers will not correct for a selective error in sampling procedure. The loaded factor operates for the two-millionth ballot just as it did for the first.

The *weighted-sample* technique assumes that it is possible to isolate and measure factors, or groupings, which determine the distribution of the variable in question. The distribution of votes on election day among the various parties may be determined by such factors as age, sex, religion, political affiliation, section of the country, income, source of income, occupation, race, amount of education, native country, steadiness of employment, and marital state. The method of the weighted sample tries to choose from the many possibilities the important determinants of voting behavior. The sample is then constructed by preserving in the miniature population the ratios of the selected groupings which hold for the total population. These ratios are not always easy to ascertain. For example, what percentage of the population earn over \$5,000 a year? What percentage are Baptists? What percentage are employers, carpenters, farmers, teachers? Census and survey figures help here, but such figures are not always up to date and are not concerned with all of the potentially important groupings.

The best known of the weighted-sample polls is that of the American Institute of Public Opinion. The problem of the selection of the significant groupings in the voting population was solved in this poll by experimentation. Gallup tried distributing straw-vote returns according to various factors. Those which showed an even distribution of ballots between the major candidates were discarded. Five controls were finally chosen. First, ballots returned from each state were to represent the correct proportion of the state's population to the national population. Second, the ratio of farm and city votes in each state was to be maintained. Third, the correct percentage of voters in each income group had to be represented. Fourth, the ballots returned were to reflect accurately the proportion of young people who had come of voting age since the last election. Fifth, the return was to come from the correct percentage of people who voted for Roosevelt, Hoover, Thomas and others in 1932.

The distribution of ballots in the proper proportion is, how-

ever, only half the story. Ballots leave the polling office in the proper ratio according to the factors mentioned. But the neat ratio is seldom maintained after the round trip from office to voter to office. As a rule less than one-fifth of the mailed ballots are returned and these tend to come from selected groups. People with intense opinions (reformers, arch-conservatives, radicals) are more likely to return ballots than those who are luke-warm or undecided; more highly educated and economically secure persons take a greater interest in the ballots and feel more free to answer them. The American Institute found that the largest response (about 40 per cent) came from people listed in *Who's Who*. Eighteen per cent of the people in telephone lists, 15 per cent of the registered voters in poor areas, and 11 per cent of people on relief returned their ballots. Men are more likely to reply than women.

These peculiarities in the mail response of the sampled population are counteracted in two ways; using interviewers¹, and adjusting the final number of ballots according to the original quota-controls. The Institute had some 200 interviewers scattered throughout the nation. The answers they gathered constituted one-third of the final return for the Institute poll. Interviewers can be used advantageously where the mail ballot is not likely to succeed: in relief districts, farms, and working class areas.

Another carefully constructed weighted-sample poll was that of Archibald M. Crossley. The two dominating factors which influence large blocks of voters in Crossley's opinion are machine, or party organization, and occupation. Party organization could not be used because of the difficulty of determining the relative strength of political machines in various parts of the country. Crossley, therefore, broke down the population according to occupation and income. Thorough surveys were made of the type of work characteristic of certain selected areas in the country. Then a specimen sample of an industry, a dairy

¹The interview technique introduces its own peculiar problems, most of which center around dishonesty. Sponsors of polls agree that about 60 per cent of the ordinary individuals hired to make interviews are dishonest after the first few days' work. Men are more dishonest than women, college trained interviewers are no more reliable than others. The poll administrators must constantly be on the look-out for deception. Interviewers are checked periodically by sending mail ballots or letters to those people whom the interviewers claim to have questioned. After a period of months or years, a staff of reliable interviewers is built up. Personal loyalty to the administrator, a genuine interest in the technique of polling or in the attitudes of the districts surveyed play an important role in creating a faithful staff.

farm, a distribution center, a tobacco plantation, or a coal mine was studied. All answers were obtained by interviews. The final returns were adjusted according to income groups. Crossley allowed 10 per cent to the top income class, 15 per cent to the upper middle, 20 per cent to the middle, 40 per cent to the lower middle, and 15 per cent to the low income group. Allowance was also made for age and sex by interviewing all voters in a family. By use of coded telegraphic reports from his 2,000 interviewers he was able to obtain 60,000 replies within 48 hours to help in his final election prediction.

The *psychological* poll is a special variation of the weighted-sample but its technique is sufficiently unique to warrant a separate classification. It is exemplified by the *Fortune* poll conducted for that magazine by P. T. Cherington and E. B. Roper. The population is broken down according to certain groupings and different percentages of the sample are assigned to these groupings as in the weighted-sample method. *Fortune* differed from the Gallup and Crossley polls in its conception of the nature of an adequate sample. Instead of attempting to secure a statistically reliable cross-section of the population, *Fortune* depended upon the selection of typical voters so characteristic of their groups that a single case was taken as representative of thousands of people. In the city of Chicago, for example, only 75 people were interviewed. And for the whole nation only 4,500 people were polled—a sample of one hundredth of one per cent of the actual voting electorate.

In its search for typical voters *Fortune* needed an unusually able staff of interviewers. To qualify as an interviewer, an individual had to be a member of the community which he was to survey. He had, moreover, to be recommended by some prominent local citizen. The interviewer was required to make a thorough study of the community and to select his cases with the utmost care after considerable inquiry into their psychological identifications and objective status. Actual income was considered less important than the income group with which the individual identified himself and with which he was identified by his community. This was a practical recognition of the psychological fact that a person's ideas and actions are more closely related to his attitudinal than his objective status. A self-made or one time aristocrat may have aristocratic attitudes even though he can not always have butlers and country houses. Many an American who derives 95 per cent of his income from his work and

5 per cent from investments, identifies himself with capital rather than labor.

A further recognition of psychological principles appeared in the questions asked by the *Fortune* interviewers. Instead of the dichotomy method of voting *for* or *against* a candidate, an expression of opinion about President Roosevelt on a four-step attitude scale was permitted. In this way the intensity as well as the nature of the voter's attitude was discovered².

Fortune made use of five groupings of the population: age (half below and half above 40), sex, geographical divisions according to the 1930 census, rural-urban districts, and economic class. The percentages allotted to income groups in terms of psychological identification were as follows: prosperous, 10 per cent; upper middle class, 30 per cent; lower middle class, 40 per cent; and poor, 20 per cent.

THE ACCURACY OF THE POLLS

The accuracy of the polls must be considered in relation to their objectives. If a straw poll has the practical purpose of predicting the outcome of a specific election, then the essential criterion of its accuracy is a comparison between its figures and the election returns. Here accuracy is not a matter of the reliability of the poll but of its validity. If a poll of public opinion has the more scientific purpose of discovering the distribution of attitudes in relation to such variables as sex, age, or residence, then its accuracy can be measured by subsequent surveys which sample more and more of the population. In this case the accuracy of a poll is gauged not by validating it against election returns but by determining its reliability in further experiments.

Election returns are a poor criterion for evaluating the reliability of a scientific poll because not all American citizens exercise their highly prized franchise. In the last national election about 60% of the eligible voters cast their ballots on November 3rd. Any poll of an election is therefore only a "sample of a sample" to use Crossley's phrase (5). This would present no

²People were asked: "With which one of the following statements do you most nearly agree:

- a. Roosevelt's re-election is essential for the good of the country.
- b. Roosevelt may have made mistakes but there is no one else who can do as much good.
- c. Roosevelt did many things that needed doing but most of his usefulness is now over.
- d. About the worst thing that could happen to the country is another Roosevelt administration."

difficulty if the actual voters were truly representative of the total electorate. Many factors, however, may influence the final vote at the election booth which either do not cut across the straw ballot or do not affect the straw vote in the same way: for example, the weather, other difficulties in getting out to vote, apathy, party machinery, coercion, and the like. Thus it is possible that a poll may be a more reliable indication of voters' attitudes than the election itself. However, this does not relieve the commercial polls from their avowed task of predicting election returns accurately. And forecasting was the main purpose of all the polls described above.

There are various ways in which a poll result may be compared with election returns (10, 17). The more ordinary procedures are given below with the results of the 1936 polls compared to the final election figures.

1. *The error in electoral votes forecast.* All of the major polls³ tabulated their results in terms of electoral votes. This is only a rough measure of accuracy, since it fails to indicate how closely the forecast approximated the distribution of popular votes in each state. A straw poll might accurately predict the electoral vote and yet fall wide of the mark in its prognosis of the margin of victory in the various states. In another election, therefore, it might miss the electoral vote completely. Following is the record of the polls in respect to electoral votes forecast.

	Roosevelt	Landon	Doubtful	Error
Final Election Returns	523 *	8	.....	.....
American Institute <i>Data</i>	477	42	12	46
American Institute <i>Prediction</i>	315	12	204	208
Crossley <i>Data</i>	470	61	.....	53
Hearst Interpretation of Crossley <i>Data</i> ⁴	270	89	172	253
Literary Digest	161	370	.....	362

It will be noted that in the case of the Institute and Crossley polls if the doubts are resolved in the direction of the data, the

³Because of the size of the *Fortune* poll it was not generally regarded as of "major" importance. *Fortune* predicted only the final percentage. Its sample was too small in separate states to warrant individual estimates.

⁴The syndicated Hearst review of Crossley's final figures which appeared the Monday before election was apparently deliberately equivocal. Instead of presenting Crossley's data, only vague generalizations were published. The quantification of the Hearst prediction is, therefore, difficult and the figures here are, at best, approximations.

polls check more closely with final election returns. Gallup placed 14 states in the doubtful column since they showed a margin of two per cent or less for the leading candidate. Not one of these states was actually doubtful on election day according to Gallup's criterion.

The collapse of the *Literary Digest* was all the more remarkable in that it missed the electoral total by only 22 votes in 1924, by 41 votes in 1928, and 23 votes in 1932. In each of the three presidential elections prior to 1936 the *Digest* thus did better than any of the major polls of 1936.

2. *The percentage error in predicting the winner's proportion of the total popular vote.* The percentage of total votes received by a single candidate can be checked against the percentage of votes received in the actual election. Unless this criterion of straw poll accuracy is broken down into a state by state comparison, it is a poor measure of predictive performance. A seemingly accurate national percentage may cloak large compensating state errors. The record of the 1936 polls in predicting the proportion of total popular vote for President Roosevelt follows:

	Roosevelt	Error
Final Election Returns	60.7	.....
Fortune	61.7	1.0
American Institute	53.8	6.9
Crossley	53.8	6.9
Literary Digest	40.9	19.8

Curiously the closeness in forecasting the percentage of the popular vote was in inverse proportion to the size of the sample. *Fortune* with the smallest sample came within one per cent of the Roosevelt vote, whereas the *Literary Digest* with the largest sample made the poorest prediction.

3. *State by state plurality error.* A better test of the accuracy of a poll is its state by state plurality error. For every state the difference between the plurality predicted for a candidate and the plurality actually received is divided by the total number of votes cast (or by total major party vote). This method is superior to straight percentage error for a single candidate because it takes account of the fact that an election is always between two or more candidates. In our two party system if a poll overestimates one candidate by two per cent, it underestimates his opponent by two per cent. Hence its total error for the election is really more than two per cent. When

straight percentage error is used, a poll can practically never be 100 per cent wrong, even if every one of its straw votes endorses the losing major party candidate. For example, in the Roosevelt landslide of 1936 the *Literary Digest* predicted an overwhelming victory for Governor Landon. According to the straight percentage error given above, it was wrong by only 20 per cent. Therefore, the plurality error which expresses the accuracy in estimating the margin of victory is to be preferred. Table I presents the state by state plurality errors for the three major polls.

TABLE I
PERCENTAGE PLURALITY ERRORS—1936 ELECTION

State	Crossley	Gallup	Literary Digest
Alabama	2	8	20
Arizona	18	28	52
Arkansas	4	2	16
California	12	18	44
Colorado	10	14	46
Connecticut	34	16	52
Delaware	14	4	28
Florida	4	14	34
Georgia	8	8	22
Idaho	20	8	46
Illinois	10	16	40
Indiana	6	12	40
Iowa	14	10	38
Kansas	12	12	36
Kentucky	2	2	8
Louisiana	4	12	42
Maine	16	10	24
Maryland	8	6	24
Massachusetts	24	14	64
Michigan	14	16	64
Minnesota	23	25	53
Mississippi	4	4	18
Missouri	5	9	36
Montana	12	20	54
Nebraska	10	10	38
Nevada	16	12	48
New Hampshire	12	14	56
New Jersey	18	18	56

State	Crossley	Gallup	Literary Digest
New Mexico	8	6	24
New York	14	12	28
North Carolina	2	6	0
North Dakota	2	10	46
Ohio	24	18	44
Oklahoma	12	6	32
Oregon	13	15	41
Pennsylvania	26	14	34
Rhode Island	8	14	64
South Carolina	1	9	27
South Dakota	4	16	42
Tennessee	0	2	4
Texas	1	11	33
Utah	16	10	26
Vermont	11	9	37
Virginia	11	5	17
Washington	22	16	54
West Virginia	15	17	35
Wisconsin	12	22	60
Wyoming	24	20	48
Average	11.71	12.08	37.14

The Crossley poll and the American Institute both averaged a state plurality error of 12 votes for every hundred votes cast. The Crossley poll is slightly more accurate in the state average than the Gallup poll, but in individual states it missed the correct plurality by greater margins than did the Institute. Thus in Connecticut the Crossley poll ran up a plurality error of 34 whereas the greatest error for the Gallup forecast was that of 28 in Arizona. Gosnell has noted that Gallup's plurality error was less in states regarded as uncertain (10). The *Literary Digest* averaged a plurality error of 37 for all states. Its greatest failures were in Massachusetts, Michigan, and Rhode Island, where it missed the plurality by 64 votes out of every 100 cast. The record of both Crossley and Gallup indicate that in a close election they might easily miss the winner unless their methods are improved. They approximate the plurality error of the *Literary Digest* in 1924 and 1928, but do not equal the *Digest's* 1932 record when its plurality error was only 6 votes per hundred cast.

WHY WERE THE POLLS WRONG?

Three facts stand out in the record of the straw polls in the last election. First, the *Literary Digest*, in spite of one of the best forecasts in poll history in 1932, broke down completely as a predictive instrument. Second, the elaborate techniques of the Gallup and Crossley polls failed to produce highly accurate estimates. To be sure, they did predict the winner and they were correct in the majority of the states, but they missed the landslide nature of the election. Their performance was certainly not the poorest in poll history, but it was also not the best. Third, *Fortune*, with a ridiculously small sample from a statistical point of view, came within one per cent of the final popular vote. How are we to account for this record?

The *Digest's* debacle was apparently due to a sweeping change in the political alignments of 1936. Evidence indicates that the voters' choice was determined more by economic interests in the past election than in any election since 1896. The wage workers voted solidly for President Roosevelt and the farmers returned heavy majorities for him. Governor Landon did relatively better among the middle classes as is attested by the small town vote. Hitherto the selective error in the *Digest* sampling technique was a minor difficulty. In 1936 with a new political situation this selective error assumed major proportions.

The most important specific reasons for the *Digest's* error are these: (1) As has been already noted, it polled the upper income groups disproportionately in comparison to the lower income groups. Its mailing lists were selected largely from telephone books, automobile registration records, or in general from people who owned enough or were important enough to have their names somewhere.

(2) It sent all its ballots by mail. Members of the "lower" classes are not as likely to return their ballots as people in the higher income groups. Moreover, the voluntary return of mail ballots is heavily loaded with the "protest" vote. Bitterness against the administration is more likely to be registered in straw polls than is contentment with the administration. For this reason the *Digest* did so well in 1932, the only year in which it did not overpredict the Republican vote. Its selective error was compensated by the tremendous protest against the Hoover administration.

(3) Its sample was overweighted with Republicans by about eleven per cent, according to its own data (13). On the *Digest*

ballot people recorded how they voted in 1932. Although in that year the major party vote divided in a 59-41 ratio, the *Digest* had about ten per cent more Hoover supporters in its sample than Roosevelt adherents. This is probably just another way of stating the facts given above under reasons (1) and (2).

(4) Its poll was taken in and before September. The American Institute and Crossley polls showed a swing to Roosevelt beginning early in October. Too much can be made of this factor of a late swing to Roosevelt, however, since it provides the simplest possible rationalization for error.

Because of the careful system of checks and balances devised by the administrators of the weighted polls, their mistakes are more difficult to locate. The following considerations indicate likely sources of error.

(1) The selection of factors according to which the sample is to be weighted or controlled is a knotty problem. Its difficult nature is shown by the fact that the weighted-sample polls did not agree exactly on the factors which they used to obtain a representative cross section. In other words, it is not easy to construct a sample of the population based upon segments of people (economic status, previous political affiliation, occupation, etc.) rather than upon whole personalities (2). If the problem is to be solved at all, it will take continued study and experimentation. Since this was the first attempt to apply the weighted sample to election forecasting, it is reasonable to expect a better performance in future elections.

(2) Even after the significant groupings have been selected for the control of the sample, it is far from easy for poll administrators to estimate the proper ratios within certain groupings. All the weighted polls used income as a control factor, but the calculation of the exact percentages of voters in various income brackets proved a stumbling block. The traditional secrecy of ballots and the comparatively unknown voting habits of different groups of people make it almost impossible to judge the exact proportion of individuals in different groups who actually vote. It is probable that the estimates of the percentage of the *population* in the different income groups as used by the polls this year underestimated the percentage of *voters* in the lower income brackets. Crossley has already indicated that in another poll he would allow for a larger percentage of laborers (5).

(3) The weighted polls missed the size of the labor vote for Roosevelt because of the unreliability of the answers of people

in the lower income groups. The worker, who fears the loss of his job if he votes for the "wrong" man, is likely to suspect an interviewer in these days of stool-pigeons, strike-breakers, and company spies. He may, therefore, either refuse to answer or give the "right" answer, although his mind may be clear regarding his intended conduct at the election booth. It is a well-known fact that during the last campaign, many workers displayed Landon signs on their automobiles and in their houses just to play safe with the boss when they had no intention whatever of voting Republican.

(4) It is a question as to whether the Institute and Crossley polls used a large enough number of straw votes to make their results statistically reliable. Even Gallup's 315,000 distributed ballots for his final tally is small when one remembers that only 20 per cent of mailed ballots are returned, and when one considers that this sample had to be broken down into five sub-groupings.

(5) The history of American party politics shows that it is by no means impossible that there may be corruption at the polls (11, 16). Although such corruption seems to be on the decline, it no doubt introduces a slight influence tending to disturb poll forecasts. Methods of intimidation and ballot-box stuffing are becoming increasingly subtle and devious. This factor is most important in regard to "radical" votes which are not infrequently thrown away.

(6) The poll administrators probably underestimated the proportion of enfranchised citizens who failed to vote in the 1932 election but who turned out in 1936 to vote for Roosevelt. This was due to many factors, chiefly perhaps, to the class nature of the election and the basic human issues implicitly involved.

(7) Although Gallup showed a very definite positive relationship between age and conservatism and was well aware of this, both he and Crossley probably did not allow enough strength to the new voters.

(8) The polls measured only the direction, not the intensity, of the voter's attitude. Since the enthusiasm of an individual for his particular point of view is apt to pervade those in his immediate family or those working close to him, a larger percentage of intense attitudes for Roosevelt would have a cumulative effect not tapped by the polls. Thus a poll might show that the major party candidates had an even chance of winning. But

if the 50 per cent for one candidate were tepid in their enthusiasm while those on the other side had definitely strong feelings, the latter group might be expected to convert more middle-of-the-roads before election time. This intensity of attitude could be easily measured by the use of a graded scale.

(9) The poll administrators did not follow their own data closely enough. The Gallup forecast refused to predict the outcome for 14 states because they were so close to the borderline of a 50 per cent division between the major parties. Actually only two of these states were precisely borderline according to the Institute's figures. Of the remaining 12 states, three were leaning Republican and nine Democratic. A large majority of slight differences was thus on the Democratic side, but the Institute preferred to err on the side of caution. The Crossley poll was even more cautious in its final prediction.

There were two reasons for the failure of poll administrators to follow their own data. (a) Experimental evidence shows a tendency to avoid extreme judgments, especially when the judgment is made for public consumption (6). The figures of the weighted polls were consciously and unconsciously loaded to favor a mild plurality prediction. Chances of going wide of the mark are less great if one predicts a close election than if one predicts a landslide. The urge for moderation was particularly strong in 1936, since the weighted polls were on public trial for the first time, and since the *Digest*, with its reputation for successful prediction, was forecasting an overwhelming Landon victory. (b) The selection of the different factors considered of most importance in determining a vote may not be as objectively made as the poll administrators think. No matter how honest or sincere an administrator may be, he is after all human and is, therefore, likely to introduce his own unconscious bias or prejudice into the choice of the supposedly important groupings to be followed. For example, if the administrator is a member of the upper middle class he may not fully appreciate the intensity of feeling found in people at either end of the economic scale. Or, because he himself is not a day laborer and has not had sufficient contact with such people to project himself fully into their situations, he may not appreciate their growing solidarity and unanimity of opinion.

(10) The last-minute swing to Roosevelt may have slightly affected the weighted polls. The final tabulation of the American Institute was based on data from one to two weeks old.

Crossley's final figure was only two days old. It is possible that the propaganda against the social security program had a boom-rang effect on the Republican vote.

The *Fortune* poll is difficult to evaluate. Its prediction was accurate and its method ingenious, but from the point of view of statistical adequacy its sample was ridiculously tiny. Until this technique is tested a number of times, its validity cannot be established. On the other hand it is possible that the use of the graded scale and the selection of typical personalities from various sections of society instead of a mathematical juggling of specific factors may have contributed to the accuracy of *Fortune's* forecast. It is also important to recall that *Fortune's* Quarterly Surveys are generally not concerned with strictly political news. The editors gather opinions on a wide variety of social and commercial issues. For this reason, their sample represents a cross-section of the typical American population and not a cross-section of the voting population. Hence *Fortune's* sample for the 1936 election predictions probably contained a more accurate representation of the proportion of voters in the various economic classes than either Gallup's or Crossley's cross-section, since these poll administrators, conscious of the problem, erred in their estimates of the number of people in the lower classes who would actually vote. The neglect of the problem by the *Fortune* poll apparently contributed to its accuracy. This happy oversight may have less favorable consequences in future elections where different voting habits may prevail in different classes.

In general the polls of 1936 were at a disadvantage because the recent election saw a realignment of interests under the old major party names. A "Democrat" in 1936 was not the same as a "Democrat" in 1932. The *Literary Digest* was particularly embarrassed by the new correlation between economic and political groupings. Its selective error and the incidental nature of its sampling finally caught up with the largest poll in American history. The weighted-sample technique had its difficulties with the political realignment, because it used the 1932 returns as a reference point. Nevertheless it did well for its first appearance in forecasting elections. Its outlook for the future is particularly bright. As our period of expansive industrialism draws to a close and class lines begin to form, a weighted-sample method will be at a great advantage since the weighted factors in the election will be more clear cut.

EFFECTS OF POLLS

A description of any social phenomenon is incomplete without a consideration of its social consequences. Often the most important phase of a social action is neither its motivating cause nor its designed results but its effect upon other social occurrences. What are the chief consequences of straw polls? Three may be noted: (1) their general influence upon popular thinking, (2) their specific political results, and (3) their contributions to psychological knowledge.

(1) Publicized polls accentuate stereotyped thinking on political and economic questions. The use of a dichotomized technique instead of a graded scale makes for an oversimplification of issues. One must be either "for" or "against;" one must answer "yes" or "no." For example, in the *Literary Digest* poll on the New Deal in 1935 people were asked "Do you approve on the whole of the acts and policies of the Roosevelt administration?" This all-or-none type of question discourages discriminating analysis and forfeits a host of individual attitudes by forcing people into two opposing camps.

The polls have not, of course, created the mental economy of dual and opposed concepts. But they do feed the tendency and even elicit it when it would not otherwise be operative. On many issues people would like to avoid the yes-no alternatives and qualify their attitudes. In the case of the *Digest* question on the New Deal, many people wrote letters stating that there were some parts of the New Deal which they approved, other parts which they disapproved. Some provision for the accommodation of personalistic attitudes would provide not only a range of opinion on a given issue but a variety of different opinions not comparable on a quantitative scale. The poll administrator faced with this problem points out that the inclusion of a large number of possible choices in his ballot would cut down the number of returns. This may be true, particularly in mailed ballots, but it is beside the point.

The poll administrator must concern himself with the recording of allegiance to common slogans. He usually does not care to make an inquiry into the fundamental presuppositions involved in issues⁵. Even if he wanted to ask basic questions, he

⁵The American Institute of Public Opinion and *Fortune* have gone further than most polls in this respect. Many of their investigations have attempted a rather thorough analysis of public opinion, though the results are comparatively inaccessible to the social scientist because they lack the news value necessary for their commercial publication.

might be unable to publish the results because of the vested interest hiring his service or because such questions would not have news value for the majority of readers. In many instances, then, the poll administrator consciously or unconsciously poses leading questions by narrowing down the voters' choice to almost equally undesirable candidates or issues. While it is scarcely the function of an opinion poll to stimulate people to critical thinking, it is nevertheless a potential instrument for doing so. Furthermore material of great psychological importance could be obtained by attitude scales which dug more deeply into social problems.

There are, however, two compensations for the tendency of the polls to perpetuate current stereotypes. The canvassing of opinions and the publication of returns may result in a more realistic notion of the nature of public opinion. People have been inclined to regard public opinion as a super-individual force controlling and molding men's minds rather than as a multi-individual consensus. They have, therefore, been suggestible to phrases like "Public opinion demands—" or "The will of the American people must be obeyed." As people become more poll-conscious such slogans may lose their force unless actually backed up by the tabulated opinions of a large sample of the population as reported by a trustworthy poll.

The force of the polls in preserving stereotypes may also be diminished by their occasional encouragement of social-mindedness. If people are frequently questioned on social and political topics they may become aware of certain issues they had previously not thought about.

(2) Two much discussed political consequences of the polls are their influence upon the democratic process itself and on public opinion. Straw polls can furnish a ready means for the recording of people's opinions on vital issues. The American people, for example, are for the most part politically inarticulate except on election day. Legislators remember this day as it approaches but are apt to forget it as it recedes, lending their ears more to powerful minority groups than to their constituency as a whole. An adequate poll machinery can take up some of this slack between the people and their representatives and thereby encourage genuinely democratic procedures.

Already polls have had their effect in this respect. The overwhelming sentiment reported by the American Institute in March 1936 in favor of civil service reform preceded a favorable state-

ment toward this principle from both the Republican and Democratic national platforms. This may mean little toward genuine reform of the civil service but it is an indication of the possible use of the polls. The British peace poll with its 11,000,000 votes undoubtedly had its effect on the foreign and domestic policies of the Baldwin government. It has been suggested that in a real democracy an adequate poll be maintained as a part of the Department of Interior to provide government officials with up-to-date information regarding public opinion on issues being considered by those officials (4). Such a poll could also determine what issues the people were most anxious to have their representatives solve. In one of his surveys, Gallup asked "What do you regard as the most vital issue before the American people today?" Hundreds were suggested, but when they were catalogued it became apparent what things the masses were most interested in. Unemployment, government spending, and neutrality ranked highest. Other problems on the minds of citizens were: labor, bettering farm conditions, the redistribution of wealth. Not only could the direction of legislative activities be somewhat guided by the polls but the form of legislation most suitable to the majority could be detected.

Critics will object that an increase in political democratization by polls of public opinion would be meaningless. They will point out that modern agencies of communication make possible a rapid and powerful control of the masses by skillful propaganda. Special interest groups need not operate lobbies at Washington, since they can influence the constituencies back home to bring pressure on their representatives. The public opinion polls will, then, merely reflect the propaganda of the minority interests so long as there is no democratization in the ownership and operation of opinion-forming agencies. Be this as it may, the polls would still represent an increase in political democracy. It is an advance when people can voice their own opinions even though their minds have been made up for them. Sometimes, too, the propaganda may not work. At any rate, it is more democratic to be allowed to deceive oneself than to be deprived of participation.

The conservative press has been aware of these democratic possibilities of the polls and has consequently opposed them. In the wake of the last election a flood of anti-poll editorials appeared, condemning them as public nuisances. The arguments offered in the editorials were so far devoid of logic that the sug-

gestion of an ulterior motive is inevitable. If the people become vocal the newspapers will no longer be able to tell them what to think. And most editors, representing as they do the *status quo*, are afraid that people will become aware of their political power.

The possible band-wagon effect of polls has already been considered real enough to furnish the basis for two Congressional proposals to bar ballots from the United States mails. Whether or not straw polls do have an appreciable influence of this sort is a debatable question. Experiments in other fields have demonstrated the tendency of people to conform to majority opinion (14). Specific studies of the band-wagon effect of straw polls, however, are lacking. S. P. Hayes' investigation of voters' attitudes in 1932 showed that most Hoover supporters and the great majority of Roosevelt supporters expected their candidates to win, but it did not indicate whether this impression of universality was the cause of voting preference or the result of the projection of the voters' wishes (12). The latter possibility is suggested by Nixon's study of wishful attitudes (15). A recent survey by Gallup revealed that a much smaller percentage of Landon than of Roosevelt supporters thought their candidate would win (8). Here again the evidence is open to a number of interpretations. In the past campaign the *Literary Digest* with the prestige of three successful predictions in presidential elections apparently had little influence, though its returns were extensively publicized in the press and over the radio. If anything, it seems more likely that it called forth protest votes from the people who were afraid it might be right.

The last election seems to have been decided long before the campaign began⁶. It is therefore unlikely that people were as suggestible to majority opinion in this election as they might be in one where no basic issues were at stake. Furthermore the much discussed impression of universality may not really be as effective as the impression of universality in its true psychological sense. It is not the universe nor even the nation which affects and is comprehended by the individual. It is *his own* universe.

⁶The American Institute polls shows approximately the same percentage for Roosevelt in June as it did in its final tabulation (9). The *Fortune* poll published in January 1936 showed that 60.8 per cent of the people wanted Roosevelt and that 7.4 per cent were undecided. By October 1936 these figures had changed but little, 59.2 for Roosevelt with 4.1 still undecided. A poll made by *Fortune* in mid-October showed Roosevelt's popular strength as 59.6 per cent. Campaign oratory and propaganda apparently had a negligible influence on the voter's attitude (7).

And this is composed largely of his immediate friends and associates and the environment in which he moves and has his being. It is a very limited universe, then, with which most individuals identify themselves. The *Literary Digest* figures meant little to the average citizen but the remarks of his acquaintances and friends were all important.

(3) To the social scientist one of the most interesting phases of straw polls is their relation to his own methodology. Since the predictive value of polls can be checked against election returns, they may furnish unparalleled opportunities for the evaluation of the techniques of attitude research. As has already been noted, however, it is necessary to distinguish between the polls as reliable indicators of opinion and the polls as valid predictive instruments for forecasting elections.

Experience with straw polls emphasizes the necessity for constant alertness if loaded factors are to be avoided in a sampling procedure. The method must be examined logically as well as empirically. The selective error in the sampling technique of the *Literary Digest* was logically apparent long before it became empirically important. Merely because a method works fairly well on one or more occasions is no guarantee of its reliability.

The importance of a constant check upon weighted variables is due to the very nature of social behavior. Research findings indicate that the normal curve of probability characteristic of non-social phenomena is frequently replaced in the social field by a highly asymmetrical curve indicative of the institutional weighting of social ideas and actions (1). The use of the weighted instead of the random sample by Gallup and Crossley was an implicit recognition of the loaded nature of public opinion. The important weighted factors, moreover, may shift suddenly. Hence the investigator of social phenomena must accompany his technique with constant objective analysis.

The experience of the poll administrators places renewed emphasis upon the psychological nature of the response to questionnaires. Cooperation of people sampled is largely a function of interest. So much is this true that the representativeness of the sample is frequently distorted through the greater cooperation of interested groups. The American Institute has no difficulty in obtaining replies, if its questions are on contemporaneous problems on debatable proposals, or on ideas involving well-known personalities. Questions must avoid, however, religious, moral, and other issues concerning which people have

deep-lying biases. When polls are taken on complex problems like the relation of the government to the railroads, returns are invariably small.

Interest alone is not sufficient to secure a reliable answer. The anonymity of the respondent must somehow be psychologically assured, otherwise he will not indicate his own personal attitudes. Social psychologists and poll administrators alike have neglected the importance of this factor in attitude research. It is an even greater problem when dealing with all classes in a society than when dealing with a student population.

The questionnaire and the oral interview have compared so unfavorably with controlled laboratory experiments that their use has been frequently challenged. The straw polls, however, confirm evidence from social research that when these techniques are carefully handled they can give fairly reliable results. Every poll which tried successive samples of popular opinion in 1936 found substantial constancy in the returns. Slight differences in the distribution of opinion during different periods of the campaign seemed more a reflection of changes in the voters' minds than an indication of the unreliability of the method. The American Institute, for example, found a drift away from Roosevelt during the first days of Landon's nomination and the accompanying Republican propaganda. When the Democrats finally opened up in return, a slight and consistent trend toward Roosevelt was noticeable.

Opinion measurement has generally not been offered as a valid index of behavior in social psychology. The polls show, nonetheless, that under certain conditions attitudes may be used as diagnostic indicators of behavior. The forecasting record of the polls in the past four elections, though not brilliant, contains hopeful possibilities for the use of attitude measurement in predicting the outcome of social events. The value of the poll techniques for this purpose, however, has inherent limitations. The statistical use of the questionnaire and the interview does not parallel in the social field the exact methods followed in the natural sciences, where a considerable measure of prediction has been achieved. The polling devices are rather a form of the *actuarial* method which has been developed in the social studies to handle complex problems containing unknown and immeasurable factors⁷.

⁷F. H. Allport and D. H. Hartman have analyzed social science methods and have pointed out the limitations of what is here called the actuarial

The actuarial method is essentially a means of group prediction and can forecast only recurrence, never novelty. In predicting for the group, it estimates, for example, the number of people who will die at the age of 60 or the number who will vote for a given candidate; it does not tell which individuals in the group will so behave. It bases its prediction upon the assumption that the trend it has sampled will continue. This is not always the case. A new disease or the conquest of an old one will invalidate an insurance company's estimate of the mortality rate. A sudden international or domestic occurrence, happening after a poll has been taken, will destroy its prediction. To compensate for this limitation, the actuary must make frequent samples to detect change. The predictions of the scientist remain constant, providing, of course, that they were originally correct. The scientist works with known and predictable variables; the actuary with a complex pattern of both known and unknown conditions. The more the social scientist labors in his capacity of actuary the greater will become the known, the less the unknown. But since social change is one of the attributes of social life, the unknown will forever defy the exact methods of natural science.

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method (3). In natural science we try to foretell the occurrence of processes which are explicitly denotable, i. e. objectively demonstrable. In actuarial prediction we seek to forecast a complex result which can be understood imaginatively but not denoted objectively. For example, a scientific prediction about a football game would be concerned with the speed with which particular individuals could run, or the distance which specific men could pass a football. It would not, however, make any statement about the victor, for the final outcome is an evaluation resulting from complicated rules.

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INTRA-FAMILY RELATIONSHIPS IN ATTITUDE¹

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The data upon which the main body of this study is based were gathered from 558 families, including 1,568 individuals². The attitude questionnaires were obtained during the academic years 1931-32, 1932-33, and 1933-34, roughly a third of them during each of those years. Questionnaires were returned by "children" from the ages of 14 to 57, at least one of whose parents, and in many cases also siblings or spouses, had also filled out questionnaires. They were strictly anonymous, only family numbers being attached. The sources of the "children" were as follows (all in the city of Cleveland, Ohio):

No. of Families	SOURCE
180	4 public high schools from diverse types of residential areas.
278	Down-town college, both adult and younger students, from day and evening classes.
32 ³	Jewish neighborhood, obtained by student assistant.
43 ³	Foreign-born section of city, obtained by student assistant.
25 ³	Various acquaintances of the writers.

The published Thurstone scales (4) for the measurement of attitudes toward the church, toward war, and toward communism were used, and they were scored by Thurstone's method. While the scoring method suggested by Likert, Roslow, and Murphy (2) would probably have resulted in more reliable scores (particularly for attitudes toward war and communism, each of which scales contains only 20 items), these scales and

¹The senior author was a member of the teaching staff at Cleveland College, Cleveland, Ohio, when these data were collected. Grateful acknowledgment is hereby made to Dr. A. Caswell Ellis, Director of Cleveland College, for financial aid in undertaking the project.

²That is, including all families of at least one child and at least one parent. Supplementary data for "young husbands" and "young wives" are not included.

³These 100 families were obtained in an effort, not entirely successful, to get similar distributions of age and occupational level for the various religious affiliations.

this scoring method were the most satisfactory known to the writers when the work was being done.

The major problems considered in this study are as follows: what is the relationship in each of the three attitudes of various family members to each other? To what degree is there patterning of attitudes, i. e., covariation of more than one of them, within families? And upon what variables do differences in these relationships depend? The "basic" data are included in tables in the appendix, where intra-family correlations, mean scores, and inter-attitude correlations are classified according to the variables for which data were obtained, viz., sex, age, age of parents at birth of children, religious affiliation, and occupational status. But few trustworthy conclusions may be drawn from such data, since the age distribution varies at different economic levels, occupational distribution varies among different religious affiliations, etc. The discussion is therefore limited to tabular material which is based upon more careful analysis.

I

In Tables I and II are indicated, for each of the three attitudes, correlations representing the four child-parent relationships. If the four family relationships are to be truly comparable, only those families may be considered in which all family members involved in the comparison are included. Thus, only those families including both parents should be considered in comparing influence of fathers and mothers on children⁴. Similarly, only those families including both sons and daughters should be considered in comparing the degree to which sons and daughters are influenced by parents. For purposes of comparison, comparable coefficients based on all families (i. e., one or more parents and one or more children) are included in Tables I and II. It will be noted that, in general, the coefficients are very similar whether all cases are considered or the more limited number for which the various relationships are strictly comparable. This latter fact suggests that the number and selection of families has been such as to yield fairly reliable coefficients.

⁴Here, as throughout this study, we have spoken of "influence" as if it were unilateral, from parents to children only. There is, of course, particularly among older "children," an unknown degree of reciprocal influence. But certainly that of parents upon children may, by and large, be considered to be greater; hence we speak not only of "interrelationships" but of "influence."

Table I. Child-parent correlations: comparison of fathers and mothers.

	CHURCH		WAR		COMMUNISM	
	Fam. of 2 Parents	All Cases	Fam. of 2 Parents	All Cases	Fam. of 2 Parents	All Cases
Mothers-Sons .....	.573 (138) ^a	.575 (248)	.436 (135)	.454 (245)	.609 (127)	.580 (240)
Fathers-Sons .....	.586 (138)	.642 (273)	.404 (135)	.457 (261)	.404 (127)	.542 (260)
Mothers-Daughters .....	.713 (158)	.691 (310)	.462 (149)	.430 (254)	.513 (145)	.493 (282)
Fathers-Daughters .....	.636 (158)	.648 (268)	.443 (149)	.434 (262)	.624 (145)	.621 (255)

Table II. Child-parent correlations: comparison of sons and daughters.

	CHURCH		WAR		COMMUNISM	
	Fam. of Sons and Daughters	All Cases	Fam. of Sons and Daughters	All Cases	Fam. of Sons and Daughters	All Cases
Mothers-Sons .....	.503 (104)	.575 (248)	.352 (100)	.454 (245)	.447 (93)	.580 (240)
Mothers-Daughters .....	.642 (108)	.691 (310)	.437 (102)	.430 (254)	.462 (96)	.493 (282)
Fathers-Sons .....	.518 (85)	.642 (273)	.324 (80)	.457 (261)	.376 (77)	.542 (260) ^x
Fathers-Daughters .....	.621 (94)	.648 (268)	.407 (94)	.434 (262)	.525 (89)	.621 (255)

In Table III are partial correlations for the same family relationships, the influence of each parent in turn being held constant. These partial correlations are based upon all families of two parents.

It is evident from Tables I - III that the four parent-child relationships do not vary greatly; nevertheless there are some slight but consistent differences *within* two of the attitudes measured. Differences that are consistent for one attitude do not appear at all in the others. Thus, as regards attitude toward the

Table III. Parent-child relationships: partial correlations

	Church	War	Com- munism
Fathers-Sons (mothers constant) .....	.284	.265	.080
Mothers-Sons (fathers constant) .....	.243	.316	.502
Mothers-Daughters (fathers constant) .....	.460	.334	.238
Fathers-Daughters (mothers constant) .....	.210	.304	.467
Mothers-Fathers (zero order r's) .....	.757 (190)	.434 (183)	.578 (180)

church, it is evident from Table I that mothers and fathers have about equal influence on sons, with zero order r's of .573 and

^aThe numbers appearing in parentheses following coefficients, in this table as in all others, indicate the number of cases. The slight discrepancies in numbers are due to the fact that a few subjects failed to fill out some one of the three attitude scales.

.586, respectively; but that mothers have slightly more influence on daughters than do fathers, as represented by respective r 's of .713 and .636. This difference is more pronounced in Table III, which shows no difference between the mother-son and father-son relationships, when the influence of the other parent is held constant by the use of partial correlations; whereas the mother-daughter relationship (with father influence constant) is .460 as compared to .210 for fathers and daughters, with mother influence constant. Table II further confirms these findings: daughters are influenced by both mothers and fathers more than are sons.

Such is not the case, however, with regard to attitude toward communism. From Table I it appears that mothers have more influence on sons, in attitude toward communism, than do fathers, the respective coefficients being .609 and .404; whereas fathers have somewhat more influence on daughters than do mothers, as shown by the respective coefficients of .624 and .513. These differences appear more clearly in Table III where the mother-son and father-daughter relationships, .502 and .467, respectively, remain substantially unchanged from those in Tables I and II when the influence of the other parent is held constant; but the father-son and mother-daughter relationships become negligible (.080 and .238, respectively) when the attitude of the other parent is held constant. Turning to Table II, we see again that daughters are more influenced by fathers than are sons, although here the mother-son and mother-daughter relationships are equivalent.

All of the above findings are corroborated by the coefficients calculated from all possible cases, though the differences become somewhat less than when only the strictly comparable families are used. The coefficients labelled "all cases" are calculated from each possible child-parent relationship; thus, a family of two parents and two children, for example, would yield four child-parent relationships. Since there is a possibility that this double entry of members of larger families might distort results, coefficients were calculated separately for all families in which there is but one child of either sex. There are no double entries for such families. Results are presented in Table IV which show no significant differences from those obtained from "all cases". This again is evidence that the selection of cases has been such as to yield fairly reliable coefficients.

Table IV. Child-parent relationships: comparison of correlations for all cases (A) with those from families of only one child of either sex (B).

	CHURCH		WAR		COMMUNISM	
	A	B	A	B	A	B
Mothers-Sons .....	.575 (248)	.507 (150)	.454 (245)	.371 (146)	.580 (240)	.559 (142)
Fathers-Sons .....	.642 (273)	.567 (153)	.457 (261)	.359 (149)	.542 (260)	.556 (146)
Mothers-Daughters .....	.691 (310)	.642 (191)	.430 (254)	.340 (182)	.493 (282)	.540 (181)
Fathers-Daughters .....	.648 (268)	.648 (178)	.434 (262)	.364 (172)	.621 (255)	.624 (170)

The parent-child correlations with respect to attitude toward war are so nearly uniform (in the neighborhood of .40) that no analysis is possible. The reliability of the scale is somewhat in question (2).

In Table V there appears a summary of the various family relationships in attitudes. The coefficients labelled "young husbands-wives" are calculated from couples one spouse of which is included as a "child" in the previous data. Their ages range from 21 to 34, and there is no overlapping in age with the

Table V. Correlations of various family relationships.

	Church	War	Communism
Each Child-Each Parent .....	.626 (1090)	.435 (1022)	.564 (1039)
Siblings .....	.599 (330)	.369 (346)	.475 (337)
Fathers-Mothers .....	.757 (190)	.434 (183)	.578 (180)
Young Husbands-Wives .....	.672 (45)	.528 (45)	.712 (45)

father-mother group. In plotting the scatter-diagram for siblings, older siblings are plotted against younger; in families of more than two siblings, each one is plotted against each other one. From these coefficients, based upon all cases and thus cutting across all classifications, few conclusions emerge, since there are no reliable differences among coefficients, except in attitude toward the church. From this table it appears that age plays no significant role: young husbands and wives show as close relationships as do older couples. Children are not reliably less closely related to each other than to their parents, nor less closely than parents to each other. Children are as closely related to their parents, in two of the attitudes, as parents are to each other; only in attitude toward the church is the father-mother relationship reliably closer.

From Appendix I it is evident that, as just suggested, age plays no great part in determining parent-child relationships.

Some variations, nevertheless, appear, and the relationship is reliably closer at ages 17 and under than at ages 22 to 25, for children. But since the composition of the several age-groups is not identical with respect to other variables, a more minute analysis is demanded. In Table VI, therefore, are presented correlations which show the separate effect of both age and occupational status, so that variations in respect to either of them may be noted with the other held constant. Here again it appears that variations in degree of parent-child relationship are

Table VI. Parent child correlations, by age and socio-economic groups⁶.

	CHURCH		WAR		COMMUNISM	
	19 and Under	24 and Over	19 and Under	24 and Over	19 and Under	24 and Over
Soc. Ec. I-II .....	.500 (72)	.624 (57)	.243 (71)	.267 (56)	.710 (68)	.253 (57)
Soc. Ec. III .....	.707 (212)	.551 (79)	.452 (210)	.397 (74)	.578 (210)	.378 (73)
Soc. Ec. IV-V-VI .....	.760 (175)	.858 (53)	.660 (169)	.317 (52)	.553 (158)	.768 (52)

specific for each attitude. Only with regard to attitude toward communism is the effect of age conspicuous at all economic levels, and this effect varies at different economic levels: at levels I, II, and III the parent-child correlation decreases with advancing age, whereas at levels IV, V, and VI it increases with age. The only other distinct covariant with age is with respect to attitude toward war, at the lowest economic levels.

Again (still referring to Table VI) the effect of socio-economic status, with one exception, is consistent: coefficients increase as status decreases, at all ages and with respect to all attitudes; the exception is the youngest group, with regard to communism. The effect, of age, however, is as frequently in one direction as in the other; it is not consistent for any age or for any socio-economic level. Indeed, the expected effect of age not only disappears entirely in many cases, when separated from the effect of occupational status, but is *actually reversed* in four of the nine age comparisons. Whereas, as shown in Appendix I,

⁶Socio-economic status was derived from the respondents' statements of the occupation of the head of the family. These were classified according to Goodenough's (1) 6-point scheme. Group I includes the professions; II the more responsible managerial and the semi-professional occupations; III minor managerial, clerical, and skilled trades; IV semi-skilled trades, personal and public service; V personal service and transportative occupations demanding little skill; and VI unskilled labor.

Calculations were originally made for all six levels, but the coefficient become more reliable by condensing them into fewer groups with larger numbers of cases in each.

there is a steady decline in size of parent-child correlations up to age 25, for all three attitudes, this is not the case at all when the socio-economic factor is held constant. The influence of the latter is clearly more important than that of age.

The apparent discrepancy between Table VI and Appendix I is resolved by an analysis of the socio-economic make-up of the younger and older groups, which appears in Table VII. The

Table VII. Socio-Economic constitution of age groups.

	Age 19 and under	Age 24 and over
Soc. Ec. I-II	15.7%	30.2%
Soc. Ec. III	46.2%	41.8%
Soc. Ec. IV-V-VI	38.1%	28.0%
All	100.0%	100.0%

older group has almost twice as large a per cent in the highest socio-economic levels as the younger. The older group has a larger per cent at the highest levels than at the lowest, whereas the younger group has 2.5 times as many at the lowest levels as at the highest. The apparent decrease in correlation, as age increases, is thus seen as largely the result of the socio-economic make-up of the groups. Socio-economic status has more influence than age upon degree of intra-family relationship.

Some analysis of the variations in child-parent relationship with religious affiliation is also needed. Both Protestant and Catholic groups present low correlations (between .287 and .417) whereas those with no religious affiliation (i. e., those who definitely answer "none" to this question) are consistently higher (.492 to .693). The Jews, except in attitude toward war, appear between the Christian and the unaffiliated groups. There are several possible reasons for these differences: the first one to suggest itself is that the two Christian groups are relatively homogeneous in their attitudes, where the unaffiliated group is probably a heterogeneous one, certainly with respect to attitude toward the church. An examination of the sigmas of the distributions of the attitude scores, in Table VIII, indicates that this is the case.

Table VIII. Sigmas of distributions, classified by religious affiliation.

Church	Sons	Daughters	Mothers	Fathers	All
<i>Church</i>					
Protestants	1.85 (131)	1.52 (171)	1.23 (166)	1.37 (127)	1.56 (595)
Catholics	1.74 (81)	1.68 (84)	1.16 (81)	1.81 (70)	1.62 (316)
Jews	2.12 (93)	1.89 (86)	2.22 (57)	2.12 (81)	2.11 (317)
"None"	2.33 (72)	2.21 (69)	2.08 (56)	2.19 (77)	2.34 (274)
<i>War</i>					
Protestants	.99 (131)	1.10 (171)	1.05 (166)	1.11 (127)	1.08 (595)
Catholics	.93 (82)	.90 (83)	.95 (83)	.91 (72)	.94 (320)
Jews	.98 (93)	1.00 (86)	.93 (57)	.90 (81)	.97 (317)
"None"	1.12 (72)	1.16 (69)	1.00 (56)	1.22 (77)	1.14 (274)
<i>Communism</i>					
Protestants	1.15 (128)	1.01 (164)	1.02 (161)	1.10 (127)	1.08 (580)
Catholics	1.01 (81)	1.13 (84)	1.15 (81)	1.31 (70)	1.24 (316)
Jews	1.35 (98)	1.29 (84)	1.34 (56)	1.36 (78)	1.34 (316)
"None"	1.53 (72)	1.47 (61)	1.35 (54)	1.71 (75)	1.54 (262)

These comparative degrees of homogeneity in attitude serve, however, only to raise further problems. To what are they due? On first appearance it would not seem that this is merely the result of belonging to particular religious groupings. For the Protestants include almost the entire gamut of sects, from Seventh Day Adventists to Unitarians, whereas the Catholic group is more than 90% Roman (the remainder being Greek or Russian Orthodox), and yet Protestants are slightly more homogeneous than Catholics in attitudes toward both church and communism. The fact is, however, that the measure used was a scale, not of religious belief, but of attitude toward "the church." The term was interpreted by each affiliated subject as referring to his own sect. Thus the Catholic and Protestant groups are homogeneous in attitude toward "the church" because they are so selected; they are so by definition. This is obviously not true of the unaffiliated group, and it is not true of Jews, because members of the latter group were selected as having been born into Jewish families and not necessarily as having maintained their religious affiliation.

The comparatively low correlations within Protestant and Catholic families now become clear. Since religious affiliation of children was determined by that of parents, it is simply a case of filial regression. The situation is analogous to that of measuring the height of sons of very tall fathers. The sons' height would be above average, but lower on the average than that of their fathers, and the correlation of fathers' and sons' height would be less than that of unselected fathers and sons. This, of course, does not "explain away" the fact that there is

filial regression. The fact remains that Protestant parents, at least, are not "holding" their children very successfully, as will be made more clear by a later comparison of mean scores.

To put the matter more concretely, the relatively low correlations between Catholic and Protestant parents and their children is due to the fact that a single institutional influence which is operative for parents is considerably diluted in its effect upon their children. The differences in this respect between these groups and Jews and the unaffiliated are not due to selective loading. Not only does the manner in which questionnaires were obtained render this extremely improbable, but three of these four differences, in attitude toward the church, are completely reliable, and the fourth nearly so. The differences, moreover, cannot be accounted for on the basis of the age or occupational make-ups of the several groups. The four groups differ hardly at all in their age composition. Their socio-economic composition is presented in Table IX. Though the differences among

Table IX. Socio-economic composition of religious groupings.

Occupational level	Protestants	Catholics	Jews	"None"
I-II	30.1%	11.6%	13.2%	18.2%
III	40.1%	41.9%	56.0%	43.2%
IV-V-VI	29.8%	46.5%	30.8%	38.6%
Total	100.0%	100.0%	100.0%	100.0%
Median occupational level	3.5	3.9	3.65	3.7
S. D. of distribution	1.30	1.23	0.96	1.16

the four groups are not large, Protestants and Catholics are *least* homogeneous in regard to occupational level. These two groups, moreover, differ considerably between themselves, so that it is clear that the occupational make-up of these groups cannot be responsible for their similarity in respect to child-parent correlations, nor for their difference in this respect from the other religious groupings. The one respect in which these two groups resemble each other and differ from the other two groups is their allegiance to what they regard as their own church.

All this is further revealed, together with certain other findings, by a comparison of mean scores for the several groups. The raw data appear in Appendix II, classified according to the variables previously considered. (It should be borne in mind that low scores represent favorable attitudes toward church, and

unfavorable attitudes toward war and communism.) From this table have been taken all group differences which are statistically reliable; they appear in Table X.

Table X. Reliable group differences in attitudes.

<i>Church</i>	<i>Less Favorable</i>	<i>More Favorable</i>
All sons		All mothers, all daughters
All fathers		All mothers, all daughters
All daughters		All mothers
All Jews		All Catholics, all Protestants
All unaffiliated		All Catholics, all Protestants
Children aged 22 to 25		Children aged 17 and under
Children aged 22 to 25		Children aged 31 and over
All other age groups		Parents aged 60 and over
Parents, occupational level IV		Parents, all other occupational levels
<i>War</i>		
All daughters		All fathers
All mothers		All fathers
All Jews		All Catholics, all Protestants
All unaffiliated		All Catholics, all Protestants
All Protestants		All Catholics
Children at all other ages		Children aged 17 and under
Parents at all other ages		Parents aged 39 and under
Children, occupational level IV		Children, occupational levels V-VI
<i>Communism</i>		
All mothers		All sons, all daughters, all fathers
All Protestants		All Jews, all unaffiliated
All Catholics		All Jews, all unaffiliated
Parents, occupational levels I-II		Parents, occupational level IV
Parents, occupational levels V-VI		Parents, occupational level IV

Several types of influences upon attitudes are suggested by Table X, but we shall comment upon them only as they appear to affect intra-family relationships. The influence of sex is perhaps most noticeable: mothers differ from fathers reliably in all three attitudes, and sons differ reliably from daughters in attitude toward the church. But upon what other factors do these sex differences depend?

Mean scores are presented in Appendix III for sons, daughters, mothers, and fathers, tabulated for each of the religious classifications. The sex difference between fathers and mothers in attitude toward church remains for all four groups, though it is slightly less than reliable for Jews. It is apparent for all four groups in attitude toward war, and toward communism, though in no case reliable. The same sex trends appear between sons and daughters, though differences are less, and reliable in only two cases (Protestants in attitude toward church, and Catholics in attitude toward war). It thus appears that sex differ-

ences are in part a function of age. Sex differences were therefore computed separately for various age groups; they appear in Table XI; the groups for which the sex difference is reliable are indicated by an asterisk. (Computations have been made only for attitudes toward church and communism.)

Table XI. Sex and age difference in mean score.

Age	CHURCH			COMMUNISM		
	Males	Females	All	Males	Females	All
17 and under	4.72* (85)	3.74 (142)	4.11	5.25* (87)	4.72 (132)	4.93
18 to 21	4.46 (168)	4.10 (148)	4.38	4.89 (164)	5.03 (144)	4.95
22 to 30	4.88 (118)	4.38 (102)	4.65	5.20 (119)	5.05 (99)	5.13
All children	4.66* (371)	4.04 (392)	4.34	5.08 (370)	4.91 (375)	5.00
32 to 45	4.95* (106)	3.68 (187)	4.14	5.02 (105)	4.69 (174)	4.84
46 to 55	4.48* (178)	3.24 (121)	3.98	4.99* (172)	4.41 (117)	4.75
56 and over	3.74 (69)	3.07 (53)	3.45	4.82 (67)	4.54 (52)	4.70
All parents	4.48* (353)	3.44 (361)	3.96	4.97* (344)	4.59 (343)	4.78
Total	4.57* (724)	3.75 (753)	4.15	5.02* (714)	4.77 (718)	4.90

While the sex difference is thus reliable for total groups of both children and parents, it is reliable only at the youngest levels for both children and parents. In attitude toward church the situation seems to be that sons diverge from their parents' attitudes at an earlier age than do daughters; sons' attitudes remain fairly constant at all age levels, while those of daughters are much like those of their parents at the youngest level, but become steadily less favorable at increasing age levels—though they never approach very closely the attitudes of sons. The sex difference follows a different pattern with parents: attitudes become *more* favorable with increasing age, for both fathers and mothers, but the changes are larger for fathers than for mothers. No consistent age patterns are to be seen in attitude toward communism. This in itself is of some interest, since precisely the same individuals are involved. The most likely interpretation of this difference between the two attitudes is the following: attitude toward the church is primarily formed, for each individual, by a single institution; that institution is sufficiently important in the lives of these individuals that personality changes which come with increasing age, together with a changing *Zeitgeist*, demand modifications which appear as age differences in attitude. Attitudes toward communism, on the other hand, are for most subjects the result of various influences, and communism as something toward which one needs to have a definite attitude remains, for most individuals, as something so nebulous that the ravages of time have little effect.

Conclusions may be more reliably drawn, however, from sex comparisons within families. Married couples are therefore compared in Table XII, and siblings in Table XIII; in view of the absence of age trends in attitude toward communism, these calculations have been made for attitude toward church only. It appears from Table XII that sex difference among parents are less a function of absolute age than of the difference in age between husbands and wives. Father-mother differences are

Table XII. Difference between married couples in attitude toward the church. (Mean scores.)

	Fathers	Mothers	Difference
<i>A. Fathers older</i>			
Fathers under 50 years, age difference			
4 years or less	4.54 (48)	4.11 (48)	.44
Fathers under 50 years, age difference			
5 years or more	4.45 (26)	3.47 (26)	.98
Fathers 50 years or over, age difference			
4 years or less	3.78 (32)	3.20 (32)	.58
Fathers 50 years or over, age difference			
5 years or more	3.79 (37)	3.02 (37)	.77
All fathers under 50 years	4.51 (74)	3.88 (74)	.63
All fathers 50 years or over	3.79 (69)	3.10 (69)	.69
All couples, age difference 4 years or less	4.24 (80)	3.76 (80)	.48
All couples, age difference 5 years or more	4.07 (63)	3.20 (63)	.87
<i>B. Fathers not older</i>	4.35 (39)	3.97 (39)	.38
<i>C. Occupational levels</i>			
I-II	4.06 (39)	3.34 (39)	.72
III	3.88 (92)	3.41 (92)	.47
IV-V-VI	4.59 (53)	3.98 (53)	.61
<i>D. All fathers-mothers</i>	4.16 (190)	3.59 (190)	.57
<i>E. Young husbands-wives</i>	5.07 (43)	3.98 (43)	1.09

greater when their difference in age is greater, in families where fathers are older. The smallest difference is found in families where fathers are not older than mothers. The sex difference appears to be constant at all occupational levels, and to be equivalent for the younger and the older groups of parents. The large, though not reliable, mean difference between young husbands and wives may be due to the fact that a larger proportion of husbands than of wives were students.

Similar comparisons are made for brothers and sisters in Table XIII, together with those for like-sex siblings.

Table XIII. Sibling comparisons of mean score in attitude toward the church.

	Older Sibling	Younger Sibling	Differ- ence
<i>A. Brothers-sisters</i>			
Brother older, age difference 4 years or more	4.84 (46)	3.97 (46)	.87
Brother older, age difference 3 years or less	4.08 (40)	3.75 (40)	.33
Brother younger, age difference 4 years or more	4.15 (29)	4.29 (29)	-.14
Brother younger, age difference 3 years or less	3.96 (37)	4.25 (37)	-.29
All pairs, brothers older	4.49 (86)	3.87 (86)	.62
All pairs, brothers younger	4.04 (66)	4.27 (66)	-.23
All pairs, age difference 4 years or more	4.57 (75)	4.09 (75)	.48
All pairs, age difference 3 years or less	4.02 (77)	4.00 (77)	.02
All brothers	4.39 (152)		
All sisters	3.94 (152)		
Difference	.45		
<i>B. Brothers-brothers</i>			
Age difference 4 years or more	4.80 (47)	4.73 (47)	.07
Age difference 3 years or less	5.12 (49)	4.56 (49)	.56
All pairs	4.96 (96)	4.64 (96)	.32
<i>C. Sisters-sisters</i>			
Age difference 4 years or more	3.74 (46)	3.86 (46)	-.12
Age difference 3 years or less	3.58 (41)	3.92 (41)	-.33
All pairs	3.66 (87)	3.89 (87)	-.23
<i>D. All like-sex siblings</i>			
Age difference 4 years or more	4.27 (93)	4.30 (93)	-.03
Age difference 3 years or less	4.42 (90)	4.27 (90)	.15
All pairs	4.34 (183)	4.53 (183)	-.19
<i>E. All siblings</i>			
Age difference 4 years or more	4.41 (168)	4.22 (168)	.19
Age difference 3 years or less	4.24 (167)	4.14 (167)	.10
All pairs	4.32 (335)	4.18 (335)	.17

Absolute age is of little significance in relation to attitude; the slight effect that it does have is opposite for brother pairs to that for pairs of sisters. Brothers are in all comparisons less favorable than sisters, but among pairs where sisters are older the difference is negligible; where brothers are older, on the other hand, differences are large, particularly where the age difference is greatest. Perhaps the most interesting finding from this table is age difference appears to play opposite roles among like-sex and unlike-sex pairs of siblings. For among both brother pairs and sister pairs, differences are greatest where age differences are least. This is in conformity with certain other evidence, drawn from correlations, which suggests that like-sex siblings of like ages tend to diverge in opposite directions from attitudes of their parents. The differences between unlike-sex

pairs of unlike ages, however, must be attributed to quite other than the emotional determinants suggested for like-sex pairs: brothers and sisters who differ by several years in age are predestined to move in different circles, and to breathe more or less different cultural atmospheres.

So far rather definite, if slight, age patterns are to be seen for both children and parents; they may be summarized by saying that children become somewhat less "conservative" and parents somewhat more so at increasing age levels. But we have also seen that the influence of age varies with sex factors. This suggests a similar analysis of the variation of age differences with occupational status. Such an analysis appears in Table XIV. It is apparent that the age pattern previously noted for adults in attitude toward the church remains at each occupational level, except that the youngest group at the highest level is unexpectedly favorable. Among children, however, no age pattern

Table XIV. Socio-economic and age differences in mean score.

Age	CHURCH			COMMUNISM		
	Occupational Level			Occupational Level		
	I-II	III	IV-V-VI	I-II	III	IV-V-VI
17 and under	4.11 (22)	4.41 (75)	4.14 (77)	5.49 (19)	4.84 (74)	4.86 (71)
18 to 21	3.90 (44)	4.49 (120)	4.36 (91)	4.54 (46)	5.35 (115)	4.81 (86)
22 to 30	4.45 (48)	4.80 (73)	3.99 (59)	5.26 (47)	5.15 (73)	5.11 (56)
All children	4.17 (114)	4.55 (268)	4.19 (227)	5.00 (112)	5.15 (262)	4.91 (213)
32 to 45	3.81 (31)	4.20 (105)	4.64 (96)	4.89 (29)	4.91 (103)	4.99 (89)
46 to 55	4.23 (51)	3.93 (130)	4.06 (78)	4.44 (48)	4.79 (123)	4.93 (76)
56 and over	3.34 (33)	3.50 (39)	3.65 (28)	4.73 (31)	4.85 (36)	4.32 (28)
All parents	3.86 (115)	3.97 (274)	4.28 (202)	4.64 (108)	4.85 (262)	4.87 (193)

whatever is to be seen when the total group is broken down into occupational classifications. The situation is precisely the reverse when the same table is examined from the point of view of occupational status. A definite pattern of variation with occupational level is to be seen at all age levels for children, in attitude toward the church, but none whatever is visible for parents. That pattern is to find less favorable attitudes toward the church among children of middle occupational levels. The difference, as noted in Table X, is reliable when levels III and IV are contrasted with I-II-V-VI.

The influence of occupational status, sex, and age (i. e., by a comparison of parents and children) may be simultaneously compared in Table XV. In this table, groups which are alike in

sex and occupational status, differing by one generation in age, differ consistently except at the lowest occupational levels; that difference is in the direction of "conservatism" of the older generation. Groups which are alike in age and occupational status also differ consistently in both attitudes, though some of the differences in attitude toward communism are negligible; females are consistently more "conservative." Groups alike in sex and age are least "conservative" at occupational level III, except among both groups of parents in attitude toward the church. This tendency of the middle occupational groups to be less favorable toward the church and more favorable toward communism is more apparent when levels III and IV are contrasted with levels I-II and V-VI. In general it is apparent that, with the exceptions noted, sex differences are larger than age differences, which in turn are greater than those associated with occupational status.

Table XV. Differences in mean score associated with sex, occupational status and generation.

	CHURCH			COMMUNISM		
	Occupational Level			Occupational Level		
	I-II	III	IV-V-VI	I-II	III	IV-V-VI
Sons	4.35 (59)	5.01 (123)	4.56 (125)	5.02 (57)	5.32 (122)	4.91 (121)
Fathers	4.10 (61)	4.38 (156)	4.67 (118)	4.76 (58)	4.94 (150)	4.99 (115)
Males	4.26 (120)	4.66 (279)	4.61 (243)	4.89 (115)	5.11 (272)	4.95 (236)
Daughters	3.97 (55)	4.17 (145)	3.74 (102)	4.99 (55)	5.00 (140)	4.90 (92)
Mothers	3.59 (54)	3.44 (118)	3.72 (84)	4.51 (50)	4.72 (112)	4.69 (78)
Females	3.78 (109)	3.84 (263)	3.73 (186)	4.76 (105)	4.88 (252)	4.81 (170)
All	4.02 (229)	4.26 (542)	4.23 (429)	4.83 (220)	5.00 (524)	4.89 (406)

Some insight into the degree of susceptibility of children to influences other than those to which their parents are most directly subjected may be gained from a comparison of children's attitudes with those of their own parents, at various age levels and at various occupational levels. Parent-child differences in mean scores for various groupings are presented in Table XVI. The increase in divergence of scores with increasing age is, of course, not surprising, but the difference in degree of divergence between the upper and lower occupational levels is not so readily predicted, particularly since the child-parent divergence is opposite in direction for the latter two groups.

Table XVI. Parent-child differences in mean score⁷.

Occupational Levels	CHURCH			COMMUNISM		
	Children	Parents	Difference	Children	Parents	Difference
I-II-III	4.46 (411)	3.95 (400)	.51	5.05 (401)	4.81 (393)	.24
IV-V-VI	4.22 (235)	4.33 (203)	-.11	4.91 (224)	4.97 (193)	-.06
<i>Age Levels</i>						
17 and under	4.27 (213)	4.23 (312)	.04	4.89 (203)	4.87 (298)	.02
18 to 21	4.39 (304)	3.99 (491)	.40	4.97 (290)	4.72 (472)	.25
22 and over	4.69 (261)	4.16 (356)	.53	5.14 (252)	4.71 (340)	.43
<i>Religious Groups</i>						
Protestant	3.67 (302)	2.98 (293)	.69	4.63 (292)	4.26 (288)	.37
Catholic	3.06 (169)	3.04 (156)	.02	4.40 (167)	4.32 (151)	.08
Jewish	5.14 (179)	4.71 (138)	.43	5.49 (182)	5.37 (134)	.12
"None"	6.22 (141)	6.56 (133)	-.34	5.60 (133)	5.61 (129)	-.01

II

The second problem deals with the interrelations of the three attitudes measured. The basic data are given in Appendix IV, where intercorrelations appear for the several classifications of subjects. Only in respect to religious affiliation do any consistent differences in degree of intercorrelation appear. All other classifications, cutting across lines of religious affiliation, show similar degrees of relationship among the three attitudes. It is clear that there is no very definite "clustering" among these three attitudes associated with the major types of religious affiliation, or with age, sex, or occupational status. It is equally clear that religious affiliation does *influence* relationship of attitudes, whereas age, sex, and occupational status do not. For inter-attitude correlations are significant when all religious groups are included, but are low when each one is considered alone; whereas coefficients for age, sex, and occupational groups remain the same as for the total group of subjects. The reader must beware of concluding that there is no clustering of attitudes within religious groups because coefficients, for these subjects and these attitudes, are so low. The actual situation is that the uniformity of scores within these groups is so great that the slight variations in attitudes which do appear are little related to each

⁷In the occupational and religious classifications all parents and all children are included. In the age classification, only parents of children of the particular age level represented are included. Due to the large numbers of families including more than one child, scores of many parents are included in more than one age classification; the effect of this, of course, is to make the parents' mean scores for the three groups spuriously alike, and to reduce the size of parent-child differences. The discrepancy in total numbers is due to this duplication of parents in the age classification, and to the fact that 119 families failed to note information concerning occupational status.

other. The situation is analogous to the relationship of height and weight among three different age groups of children: the correlation would be low at any one age, but would be much higher for all groups together. There is a "typical" height and weight at each age level, and the two variables are related. Just so, there are "typical" attitude positions for each of these religious groups, and the attitudes are not totally independent of each other.

We have seen that there are certain intra-family relationships in single attitudes. Do the influences which result in these relationships affect more than one attitude simultaneously? Are there, in other words, intra-family relationships in the interrelations of attitudes? In order to answer this question, groups were selected (by inspection) which showed very close relationships in regard to one attitude; their relationship in regard to other attitudes was then examined. Thus one group of families was selected on the basis of a very high parent-child correlation in scores of attitude toward church; parent-child correlations in attitudes toward war and toward communism were then calculated for this group. Another group was similarly selected for high correlation in attitude toward communism, and the other two correlations calculated. Results appear in Table XVII.

Table XVII. Intercorrelations in selected groups.

	<i>Parent-Child Correlations</i>		
	Church	War	Communism
Group selected to correlate highly in attitude toward church (n=220) .....	.960	.409	.623
Group selected to correlate highly in attitude toward communism (n=227) .....	.741	.351	.927
All cases (n=1090) .....	.626	.435	.564

A variation of the method was to select a group of parents showing a high correlation between attitudes toward church and communism, and to calculate the same relationship for their children. Families included in this group were only those in which two parents each showed close relationship between the two attitudes, and in the same direction; i. e., families in which both parents favored the church and disapproved communism, or in which both parents showed the reverse attitudes, or in which both were more or less neutral regarding each attitude. These were families, in other words, in which a definite and uniform cluster-influence might be expected upon the attitudes of chil-

dren. There is the barest indication, as will be noted in Table XVIII, that children of these parents tend to share in the cluster.

Table XVIII. Inter-attitude correlations.

	Families selected for high correlation of parents' attitudes toward church and communism	All Cases
Church and communism (parents) .....	.962 (136)	.481 (778)
Church and communism (children) .....	.600 (102)	.430 (850)
Church and war (children) .....	.312 (102)	.255 (866)

The correlation of these children's scores in attitudes toward church and war also appears in Table XVIII. What might be called a cluster-effect is thus passed from parents to children to the extent of the difference between the coefficients of .600 and .430, which is not statistically reliable. The family cluster-effect, such as it is, evidently does not include attitude toward war at all.

The selective process was now carried one step farther. From the same group of families, selected for high church-communism correlation among parents, 56 children were selected whose church scores correlated very highly (.963) with those of their parents. The church and communism scores of these children were now correlated, the resulting coefficient being .746, which is to be compared with a coefficient of .430 for all children. That is, in families where parents agree closely, and where their church and communism scores are highly correlated, children show a slightly higher church-communism correlation than do unselected children; and those of the children who agree closely with their parents in church attitudes yield a reliably higher church-communism correlation than do unselected children. Only under such conditions have we been able to discover a noticeable family cluster influence.

There are many possibilities, of course, as to the medium through which the family cluster influence is transmitted. Perhaps the most promising hypothesis to pursue is that the influence is effected through certain institutions which simultaneously affect members of the same family in regard to more than one attitude. The effect of religious institutions in this manner may be analyzed. From the entire group of Catholics and Jews, all those who were extremely favorable to the church, and those whose scores were on the unfavorable side of the median position

for all subjects (4.20), were selected. Those very favorable included 39% of all Catholics and 9% of all Jews; those opposed included 13% of all Catholics and 54% of all Jews. These four sub-groups were then compared in attitude toward communism, as shown in Table XIX.

Table XIX. Mean scores in attitude toward communism of selected groups.

<i>Attitude Toward Church</i>	Catholics	Jews	Difference	S. D. diff.	C. R.
2.4 and below _____	4.10 (123)	5.28 (35)	1.18	.25	4.7
4.5 and below _____	4.91 (48)	5.86 (172)	.95	.21	4.5
Difference _____	.81	.54			
S. D. diff. _____	.21	.25			
C. R. _____	3.9	2.2			

It thus appears that Jews and Catholics who are equally favorable to "the church," i. e., whose scores on the church scale are the same, differ widely in attitude toward communism. It further appears that the difference in attitude toward communism is greater between Jews and Catholics *whose church attitudes are the same* than between Jews opposed to and strongly favoring the church, or between Catholics opposed to and strongly favoring the church. The significance of this becomes more apparent when the reliability of the difference in church attitude between the two Catholic groups, and between the two Jewish groups, is calculated. The difference in church attitude score between Catholics unfavorable to and strongly favoring the church, divided by the standard deviation of the difference, is 25.3; the comparable critical ratio for the two Jewish groups is 39.6. And yet the two Jewish groups (or the two Catholic groups) resemble each other *more* closely in attitude toward communism than do Jews and Catholics whose scores in attitude toward the church are alike. Thus potent is the influence of whatever cultural forces are associated with membership in these two religious bodies.

The potency of institutional influences upon the patterning of attitudes may be demonstrated in another way. If this assumption is correct, then those individuals most directly influenced by institutions—i. e., those favoring a given institution—should be most homogeneous in other attitudes upon which those institutions also have some influence. Church and communism represent almost ideal attitudes for testing this hypothesis: both are represented by institutions, each of which has something to say

about the other. The entire group of 258 individuals who reported "no religious affiliation" was selected as a group showing a wide range of attitudes. They were divided into three sub-groups, as follows: those strongly favoring, those strongly opposing, and those more or less neutral toward the church. Their attitude scores toward communism were then tabulated, and means and sigmas calculated. The same individuals were then similarly classified in three sub-groups according to attitude toward communism, and means and sigmas of attitude toward church calculated. Results are presented in Table XX (it should be remembered that low scores are favorable to the church, and unfavorable to communism).

Table XX. Relationship of attitudes toward church and communism.

Attitude toward church	Attitude Toward Communism	
	Mean	Sigma
3.9 and below (N 45)	4.72	.91
4.0 to 6.9 (N 90)	5.23	1.41
7.0 and above (N 123)	6.37	1.50
Attitude toward communism	Attitude Toward the Church	
	Mean	Sigma
4.4 and below (N 75)	5.59	2.05
4.5 to 6.9 (N 125)	6.10	2.34
7.0 and above (N 62)	8.36	1.10

That the two attitudes are related is evident. The correlation between them, for the entire group, is .477, but within any of the sub-groups it would, of course, be small. The relationship is also evident from a comparison of the mean scores of the sub-groups in the two attitudes. What is most significant, however, is that dispersions are too great to permit of any prediction of one score from the other, *except for the two groups which strongly favor the two respective attitudes*. Only three of the 45 individuals who strongly favor the church are above the mean of the entire group in attitude toward communism: the highest score is 6.6, and the mean for the entire group is 5.68. Scores for those neutral toward and those strongly opposing the church cover almost the entire range of the scale. The situation is analogous when the church attitude scores of those favoring, opposed to, and neutral toward communism are analyzed. Only one of the 62 subjects strongly favoring communism fell below (and very slightly below) the mean of the church attitude scores of the entire group, whereas scores both of those

neutral to and of those opposed to communism covered the entire range of scores in attitude toward the church.

It seems reasonable to conclude from this that strongly favorable attitudes related to institutions are formed to a considerable extent by those institutions, and other issues toward which those institutions take a position are reflected in attitudes which can be predicted for those strongly favoring the institutions. Attitudes strongly opposed to a given institution, on the other hand, are probably fomented not by one but by many other antagonistic institutions, and hence other attitudes held by those opposing the given institution will vary widely, and will be far less predictable.

III. SUMMARY

A. Parent-child relationships. Judging from correlations, sons are about equally influenced by mothers and by fathers in attitude toward church, while daughters are more influenced by mothers than by fathers. Daughters are influenced somewhat more than are sons by both parents. In terms of divergence in mean scores of church attitude, daughters are more like their mothers than like their fathers, and sons more like their fathers than like their mothers. The opposing influences of sex and of age, however, operate in such fashion that fathers' scores resemble those of daughters more closely than those of sons.

In attitude toward communism, father-daughter and mother-son correlations are higher than those between parents and children of the same sex. Sons and daughters differ but little in mean score of attitude toward communism; their scores approximate those of fathers more closely than those of mothers.

Age has little to do with degree of parent-child correlation in any attitude, when other factors are held constant. Parents are more "conservative" in both church and communism attitudes than children. Since children become less "conservative" with increasing age, whereas older parents are more so than younger ones, the parent-child divergence in mean scores increases with increasing age levels. Sons appear to diverge from their parents' attitudes at earlier ages than do daughters.

The influence of occupational status is fairly consistent; child-parent correlations increase as status decreases. Child-parent divergence in mean scores is least at the lowest occupational levels, and in general is greater at level III than at levels I and II. The middle occupational groups show less "conserva-

tism" than those above and below them, though this is less true for parents than for children; hence the greater divergence at the middle levels.

Child-parent correlations in church attitude are low within Protestant and Catholic groups, due largely to the fact that these groups are selected on the basis of considerable homogeneity in church attitudes of parents. The fact that the same groups tend to show low correlations in attitude toward communism indicates that institutional influences affect both attitudes. The Jewish group, being selected in part on the basis of religious attitudes of parents, and in part on the basis merely of "racial" membership, yields parent-child correlations higher than those of Protestants and Catholics, but lower than those of unaffiliated subjects. An examination of mean scores reveals that parent-child divergences are greater for Protestants, by considerable margins, than for other groups, but approximate zero for Catholics. Protestant children tend to diverge from the "conservative" positions of their parents in both church and communism attitudes, but divergences by Catholic children are about equal in both directions.

B. *Other intra-family relationships.* Sex differences within families appear in all attitudes. They are reliable for the total group of parents and for most of the sub-groupings as well, in attitude toward the church. Only in attitude toward church do sons and daughters differ reliably, though they tend to share their parents' sex differences in all attitudes; i. e., males are relatively favorable to war and to communism, and unfavorable toward the church. Sex differences vary with age, being most conspicuous at younger levels for both children and parents. This may be interpreted, as to children, as due to the fact that sons tend to diverge from their parents' attitudes at earlier ages than do daughters, so that sons and daughters resemble each other more closely following the somewhat later divergence of the latter from their parents' attitudes. As to parents' decreasing divergence in later age, it may be due in part to added years of reciprocal influence, and in part to the fact that their attitudes, being distinctly "conservative," stem from a more remote period when "every one" held to such attitudes. That sex differences are in part the result of personal interaction is indicated by their dependence, also, upon divergence in age between spouses and between siblings. For both groups, sex differences are greater where age differences are greater.

The differences in degree of correlation among the several intra-family relationships are few and slight. In church attitude the father-mother correlation is highest, whereas it is highest for young husbands-wives in attitude toward communism. Sibling correlations are lowest in all attitudes. It is thus clear that years of living together do not necessarily result in closely correlated attitudes. It is apparently a question of how significant the attitude in question is during the period of life in which the attitudes of individuals are largely formed. Church is simply a more relevant issue for the older groups than for the younger, while communism is a more relevant issue for the younger than for older groups. The order of degree of correlation appears to be: spouses, children-parents, siblings. The fact that correlations are lowest for the last of these groups in spite of the fact that they share the same *Zeitgeist*, suggests that conflicting influences are at work in the case of siblings—influences which tend toward divergence rather than toward similarity.

These diversifying influences which affect siblings have, in part, been discussed above under the heading of sex differences. But similar factors seem to be involved for like-sex siblings, among whom the divergence is greater, for both males and females, where the age differences are less. This seems to point to personal relations among siblings as factors of importance in the forming of attitudes.

C. *Family influences upon the clustering of attitudes.* Degree of intercorrelation among attitudes differs with no variable except that of religious affiliation. Intercorrelations are relatively low for any single religious group. This points to the importance of institutional influences upon the interrelationship of attitudes, not to their absence. For when such influences are, after a fashion, held constant, the relationships become consistently less. It is evident that degree of relationship of attitudes is not merely a consequence of a personal predilection of patterning, since individuals who show very high correlations between two attitudes do not show higher correlations between other pairs of attitudes than do quite unselected individuals. Nor are parents' patterns of attitudes passed *in toto* to their children: children whose parents show very high correlations between two attitudes do not themselves show reliably higher correlations between them than do unselected children. Only, apparently, where the same institutional influences affect both parents and children (i. e., children agreeing closely in church attitude with

parents whose church and communism scores are closely correlated) do children share the definite attitude patterns of their parents to any predictable degree. This hypothesis is further confirmed by the finding that two very different religious groups, Jews and Catholics, who make like scores in church attitude, differ more in attitude toward communism than do Catholics who favor and Catholics who are strongly opposed to "the church," and more than do Jews who favor and who strongly oppose "the church." Such resemblances in clustering of attitudes as is found within families seems to be due to the degree to which they share institutional influences.

D. Conclusions. Intra-family resemblances in attitudes are, of course, due to personal influences of family members upon each other, as well as to the fact that, whether by selection as in marriage, or by birth in the case of children, family members are subjected to similar institutional influences. The hypothesis which appears to emerge from the above data is that personal influence of family members upon each other is effective chiefly through the kinds of institutional influences which they bring to bear upon each other. Thus fathers and mothers show higher correlations in church attitude than all other intra-family pairings. Their divergence in mean score is also greater than for all other like-age pairings, but this divergence itself is part of the institutional pattern. It is, indeed, precisely this institutional pattern which is responsible for the high mother-daughter correlation in church attitude, rather than the purely "personal" influence of mothers upon daughters. The same institutional pattern would result in high father-son correlations, if attitudes toward church were a significant issue for males, and in particular for sons—but it is not; the mean score for all sons is close to the mid-point of the scale.

Children share some, but not all of the institutional influences which affect their parents' attitudes. Hence parent-child correlations are positive, but somewhat lower than those of fathers-mothers. But such of these influences as are shared by children are not identical for siblings; they diverge, not only from parents, but from each other, so that sibling correlations are still lower than parent-child correlations.

This is not to say, of course, that personal influence of family members upon each other has no effect upon attitudes. It is simply to posit, as our best present hypothesis, that such personal influences have their effect upon attitudes by means of sub-

jecting individuals to the impress of this rather than that set of institutional forces. Personal relationships (in large part) determine institutional influences, which (in large part) determine attitudes.

Appendix I. Correlations: each child-each parent.

	Church	War	Communism
All Protestants .....	.298 (429)	.388 (382)	.417 (405)
All Catholics .....	.352 (239)	.297 (224)	.365 (223)
All Jews .....	.513 (235)	.286 (229)	.491 (226)
All "none" .....	.650 (193)	.492 (189)	.693 (186)
Socio-economic I and II .....	.534 (179)	.375 (188)	.417 (193)
Socio-economic III .....	.651 (405)	.374 (398)	.549 (392)
Socio-economic IV, V, VI .....	.741 (321)	.562 (311)	.643 (294)
Age 17 and under .....	.675 (310)	.539 (311)	.572 (293)
Age 18-21 .....	.600 (426)	.422 (418)	.566 (407)
Age 22-25 .....	.501 (217)	.209 (211)	.429 (212)
Age 26 and over .....	.588 (129)	.313 (134)	.457 (127)
Age difference 19 and under .....	.553 (45)	.532 (49)	.311 (41)
Age difference 20-29 .....	.667 (629)	.481 (611)	.593 (600)
Age difference 30-39 .....	.611 (349)	.281 (340)	.535 (329)
Age difference 40 and over .....	.672 (49)	.473 (48)	.504 (51)

Appendix II. Mean scores for various groupings.

	Church	War	Communism
All sons	4.70 (378)	4.24 (378)	5.08 (386)
All daughters	4.03 (410)	4.05 (410)	4.94 (400)
All mothers	3.52 (370)	4.07 (360)	4.61 (350)
All fathers	4.52 (364)	4.34 (355)	5.01 (352)
All Protestants	3.33 (595)	4.34 (595)	4.49 (582)
All Catholics	3.11 (317)	4.57 (317)	4.41 (316)
All Jews	4.97 (317)	3.67 (317)	5.49 (299)
All unaffiliated	6.43 (274)	3.80 (274)	5.68 (281)
Children, age 17 and under	4.11 (227)	4.29 (221)	4.93 (219)
Children, age 18 to 21	4.38 (316)	4.04 (304)	4.95 (308)
Children, age 22 to 25	4.75 (155)	3.98 (152)	5.07 (155)
Children, age 26 to 30	4.59 (65)	3.87 (62)	5.19 (62)
Children, age 31 and over	4.03 (44)	3.83 (42)	5.31 (44)
Parents, age 39 and under	3.95 (72)	4.56 (72)	4.73 (66)
Parents, age 40 to 49	4.15 (369)	4.10 (363)	4.89 (360)
Parents, age 50 to 59	4.02 (209)	4.19 (207)	4.74 (203)
Parents, age 60 and over	3.21 (67)	4.03 (65)	4.54 (65)
Children, occupational I-II*	4.17 (114)	4.12 (114)	5.00 (112)
Children, occupational III	4.55 (268)	4.03 (262)	5.15 (262)
Children, occupational IV	4.50 (171)	3.89 (171)	4.97 (161)
Children, occupational V-VI	3.39 (56)	4.37 (56)	4.75 (52)
Parents, occupational I-II	3.86 (115)	3.97 (110)	4.64 (108)
Parents, occupational III	3.97 (274)	4.21 (262)	4.85 (262)
Parents, occupational IV	4.47 (156)	4.03 (150)	5.10 (150)
Parents, occupational V-VI	3.88 (46)	4.23 (43)	4.48 (43)

*"Children" over 30 years of age are not included in this classification.

Appendix III. Mean scores, classified by religious affiliation.

Church	Protestants	Catholics	Jews	"None"
Sons	4.07 (131)	3.14 (82)	5.47 (93)	6.54 (72)
Daughters	3.36 (171)	2.97 (87)	4.80 (86)	5.90 (69)
Mothers	2.79 (166)	2.68 (83)	4.40 (57)	5.91 (56)
Fathers	3.23 (127)	3.41 (73)	4.98 (81)	7.18 (77)
War				
Sons	4.33 (131)	4.54 (82)	3.83 (93)	3.88 (72)
Daughters	4.27 (171)	4.13 (87)	3.54 (86)	3.59 (69)
Mothers	4.09 (166)	4.45 (83)	3.56 (57)	3.75 (56)
Fathers	4.74 (127)	4.66 (73)	3.71 (81)	3.94 (77)
Communism				
Sons	4.64 (128)	4.38 (81)	5.58 (98)	5.73 (72)
Daughters	4.63 (164)	4.42 (86)	5.39 (84)	5.46 (61)
Mothers	4.21 (161)	4.11 (81)	5.32 (56)	5.31 (54)
Fathers	4.33 (127)	4.52 (70)	5.40 (78)	5.86 (75)

Appendix IV. Intercorrelations among attitudes.

	Church-War	Church-Communism	War-Communism
All Protestants .....	.028 (595)	.300 (580)	-.084 (582)
All Catholics .....	.025 (318)	.254 (316)	-.053 (317)
All Jews	-.148 (317)	.377 (316)	-.326 (299)
All unaffiliated	-.242 (274)	.477 (262)	-.277 (281)
All sons	-.297 (378)	.439 (379)	-.362 (376)
All daughters	-.220 (410)	.421 (393)	-.212 (398)
All mothers	-.199 (361)	.495 (352)	-.111 (359)
All fathers	-.256 (355)	.472 (350)	-.280 (354)
Occupational I-II	-.090 (267)	.457 (259)	-.224 (266)
Occupational III	-.326 (612)	.456 (604)	-.250 (603)
Occupational IV-V-VI	-.271 (472)	.456 (457)	-.258 (455)
Children 17 and under	-.318 (221)	.334 (213)	-.207 (218)
Children 18 to 21	-.278 (315)	.488 (315)	-.189 (315)
Children 22 to 25	-.191 (152)	.225 (155)	-.221 (154)
Children 26 and over	-.113 (104)	.537 (106)	-.376 (108)
All cases	-.230 (1504)	.449 (1474)	-.263 (1487)

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SOCIOMETRY IN RELATION TO OTHER SOCIAL SCIENCES

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I. STUDYING THE STRUCTURE OF HUMAN SOCIETY

Religious, economic, technological, and political systems have been constructed to date with the tacit assumption that they can be adequate and applicable to human society without an accurate and detailed knowledge of its structure. The repeated failure of so many plausible and humane remedies and doctrines has led to the conviction that the close study of social structure is the only means through which we may treat the ills of society. Sociometry, a relatively new science developed gradually since the World War of 1914-18, aims to determine objectively the basic structures of human societies.

From the point of view of a *medical* sociology, it is essential to know the actual structure of human society at a given moment. The difficulties in the way of attaining such knowledge are enormous and discouraging. These difficulties may be considered essentially in three categories: the large number of people, the need for obtaining valid participation, the need for arranging for continued and repeated studies. These difficulties may be considered in a bit more detail together with the steps thus far taken toward overcoming them in the development of sociometric techniques.

First, human society consists of approximately two billion individuals. The number of interrelations among these individuals, each interrelation influencing the total world situation in some manner, however slight, must amount to a figure of astronomical magnitude. Recognizing this fact, the field work of sociometry was started with small sections of human society¹, spontaneous groupings of people, groups of individuals at different age levels, groups of one sex, groups of both sexes, institutional and industrial communities. To date, various groups and communities, the total populations of which are more than

¹Sociometry is greatly indebted to the New York State Training School for Girls in Hudson, to the courage and foresight of the Superintendent, Fannie French Morse.

10,000 persons, have been sociometrically tested². A considerable amount of sociometric knowledge has been accumulated. We may not forget, though, however much we may learn in the course of time, however accurate our sociometric knowledge of certain sections of human society may become, no "automatic" conclusions can be carried over from one section to another and no "automatic" conclusions can be drawn about the same group from one time to another. Each part of human society must always be considered in its concreteness.

Second, as we have to consider every individual in his concreteness and not as a symbol, and every relationship he may bear to each other person or persons in its concreteness and not as a symbol, we can not gain a full knowledge unless every individual participates *spontaneously* in uncovering these relationships to the best of his ability. The problem is how to elicit from every man his maximum spontaneous participation. This participation would produce as a counterpart of the physical geography of the world, a psychological geography of human society. Sociometry has endeavored to gain such participation by applying as a fundamental part of the procedure an important aspect of the actual social situation confronting the people of the community at the moment. This was made possible by broadening and changing the status of the participant observer and researcher so as to make him an auxiliary ego of that individual³ and all other individuals of the community; that is, one who identifies himself as far as possible with each individual's aims and tries to aid him in their realization. This step was taken after a careful consideration of the spontaneous factor in social situations. General definitions of physical and mental needs do not suffice. There is such a uniqueness about each actual momentary position of an individual in the community that a knowledge of the structure surrounding and pressing upon him at that moment is necessary before drawing conclusions.

Third, as we have to know the actual structure of a human society not only at one given moment but in all its future developments, we must look forward to the maximum spontaneous participation of every individual in all future time. The problem is how to motivate men so that they all will give repeatedly and regularly, not only at one time or another, their maximum

²On p. 22 f., and 45 of this journal are listed some of the communities in which the work has been progressing.

³See discussion of auxiliary ego on page 17 ff. of this journal.

spontaneous participation. This difficulty can be overcome through fitting the procedure to the administration of the community. If the spontaneous strivings in regard to association with other persons or in regard to objects and values are aided officially and permanently by respective community agencies, the procedure can become repeatable at any time, and the insight into the structure of the community in its development in time and space can become constantly available.

In undertaking the study of the structure of human society, the first step has been to define and develop sociometric procedures which would surmount the difficulties described above. Sociometric procedures try to lay bare the fundamental structures within a society by disclosing the affinities, attractions and repulsions, operating between persons and persons and between persons and objects.

II. TYPES OF SOCIOMETRIC PROCEDURES

Every type of procedure enumerated below can be applied to any group whatever the developmental level of the individuals in it. If the procedure applied is, in degree of articulation, below the level of that which a certain social structure demands, the results will reflect but an infra-structure of that community. An adequate sociometric procedure should be neither more nor less differentiated than the assumed social structure which it is trying to measure.

One type of procedure is to disclose the social structure between individuals by merely recording their movements and positions in space in regard to one another. This procedure of charting gross movements was applied to a group of babies. At their level of development no more differentiated technique could have been applied fruitfully. This procedure discloses the structure developing between a number of babies, between the babies and their attendants, and between the babies and the objects around them in a given physical space, a room. At the earliest developmental level, physical and social structure of space overlap and are congruous. At a certain point of development the structure of the interrelationships begins to differentiate itself more and more from the physical structure of the group, and from this moment onward social space in its embryonic form begins to differentiate itself from physical space. The sociogram is here a diagram of positions and movements. A more highly developed structure appears when the

children begin to walk. They can now move towards a person whom they like or away from a person whom they dislike, towards an object which they want, or away from an object which they wish to avoid. The factor of nonverbal, spontaneous participation begins to influence the structure more definitely.

Another development of the procedure is used in groups of young children who (before or after walking) are able to make intelligent use of simple verbal symbols (2). The factor of simple "participation" of the subject becomes more complex. He can choose or reject an object or person without moving bodily. A still further development of the procedure sets in when children are influenced in their making of associations by the physical or social characteristics of other people: sex, race, social status, etc. This factor of differential association signifies a new trend in the development of structure. Up to this point only *individuals* stood out and had a position in it. From here on associations of individuals stand out and have a position in it as a group. This differentiating factor is called a criterion of the group. As societies of individuals develop, the number of criteria around which associations are or may be formed increases rapidly. The more numerous and the more complex the criteria, the more complex also becomes the social structure of the community.

These few samples may make clear that sociometric procedure is not a rigid set of rules but that it has to be modified and adapted to any group situation as it arises. Sociometric procedure has to be shaped in accord with the momentary potentialities of the subjects, so as to arouse them to a maximum of spontaneous participation and to a maximum of expression. If the sociometric procedure is not attuned to the momentary structure of a given community, we may gain only a limited or distorted knowledge of it.

The participant observer of the social laboratory, counterpart of the scientific observer in the physical or biological laboratory, undergoes a profound change. The observing of movements and voluntary association of individuals has value as a supplement if the basic structure is known. But how can an observer learn something about the basic structure of a community of one thousand people if the observer tries to become an intimate associate of each individual simultaneously, in each role which he enacts in the community? He can not observe them like heavenly bodies and make charts of their movements and reactions. The essence of their situations will be missed if he

acts in the role of a scientific spy. The procedure has to be open and apparent. The inhabitants of the community have to become participants in the project in some degree. The degree of participation is at its possible minimum when the individuals composing the group are willing *only to answer questions about one another*. Any study which tries to disclose with less than maximum possible participation of the individuals of the group the *feelings which they have in regard to one another* is near-sociometric. Near-sociometric procedures of the research or the diagnostic type are of much value in the present stage of sociometry. They can be applied on a large scale, and within certain limits without any unpleasantness to the participants. The information gained in near-sociometric studies is based however on an inadequate motivation of the participants, they do not fully reveal their feelings. In near-sociometric situations the participants are rarely spontaneous. They do not warm up quickly. Often an individual, if he is asked, "Who are your friends in this town?" may leave one or two persons out, the most important persons in his social atom, persons with whom he entertains a secret friendship of some sort which he does not want known.

The observational method of group research, the study of group formation from *outside* is not abandoned by the sociometrist. This becomes, however, a part of a more inclusive technique, the sociometric procedure. In fact, sociometric procedure is operational and observational at the same time. A well-trained sociometrist will continuously collect other observational and experimental data which may be essential as a supplement to his knowledge of the *inside* social structure of a group at a particular time. Observational and statistical studies may grow out of sociometric procedures which supplement and deepen structural analysis.

The transition from near-sociometric to basic sociometric procedures depends upon the methods of creating the motivation to more adequate participation. If the participant observer succeeds in becoming less and less an observer and more and more an aid and helper to every individual of the group in regard to their needs or interests, the observer undergoes a transformation, a transformation from observer to auxiliary ego. The observed persons, instead of revealing something, more or less unwillingly, about themselves and one another, become open promoters of the project; the project becomes a coopera-

tive effort. They become participants in and observers of the problems of others as well as their own; they become key contributors to the sociometric research. They know that the more explicit and accurate they are in expressing what they want, whether it is as associates in a play, as table mates in a dining room, as neighbors in their community, or as co-workers in a factory, the better are their chances to attain the position in their group which is as near as possible to their anticipations and desires.

The first decisive step in the development of sociometry was the disclosure of the actual organization of a group. The second decisive step was the inclusion of subjective measures in determining this organization. The third decisive step was a method which gives to subjective terms the highest possible degree of objectivity, through the function of the auxiliary ego. The fourth decisive step was the consideration of the criterion (a need, a value, an aim, etc.) around which a particular structure develops. The true organization of a group can be disclosed if the test is constructed in accord with the criterion around which it is built. For instance, if we want to determine the structure of a work group, the criterion is their relationship as workers in the factory, and not the reply to a question regarding with whom they would like to go out for luncheon. We differentiate therefore between an essential and an auxiliary criterion. Complex groups are often built around several essential criteria. If a test is near-sociometric, that is, inadequately constructed, then it discloses, instead of the actual organization of the group, a distorted form of it, a less differentiated form of it, an *infra*-level of its structure.

Within sociometric work several approaches can be distinguished: (1) the research procedure, aiming to study the organization of groups; (2) the diagnostic procedure, aiming to classify the positions of individuals in groups and the position of groups in the community; (3) therapeutic and political procedures, aiming to aid individuals or groups to better adjustment; and finally, (4) the complete sociometric procedure, in which all these steps are synthetically united and transformed into a single operation, one procedure depending upon the other. This last procedure is also the most *scientific* of all. It is not more scientific because it is more practical; rather, it is more practical because it is more scientifically accurate.

III. PRESENTATION AND EXPLORATION OF SOCIOMETRIC DATA

The responses received in the course of sociometric procedure from each individual, however spontaneous and essential they may appear, are materials only and not yet sociometric facts in themselves. We have first to visualize and represent how these responses hang together. The astronomer has his universe of stars and of the other heavenly bodies visibly spread throughout space. Their geography is given. The sociometrist is in the paradoxical situation that he has to construct and map his universe before he can explore it. A process of charting has been devised, the sociogram, which is, as it should be, more than merely a method of presentation. It is first of all a method of exploration. It makes possible the exploration of sociometric facts. The proper placement of every individual and of all interrelations of individuals can be shown on a sociogram. It is at present the only available scheme which makes structural analysis of a community possible.

As the pattern of the social universe is not visible to us, it is made visible through charting. Therefore the sociometric chart is the more useful the more accurately and realistically it portrays the relations discovered. As every detail is important the most accurate presentation is the most appropriate. The problem is not only to present knowledge in the simplest and shortest manner, but to present the relations so that they can be studied.

Numerous types of sociogram have been devised. A sample of the earliest type of sociogram is presented on page 108 of this journal. It portrays the pattern of the social structure as a whole and the position of every individual within it. It shows the social configurations as they grow in time and as they spread in space. Other types of sociograms are presented on pages 114 and 126 of this journal. As the technique of charting is a method of exploration, the sociograms are so devised that one can pick from the *primary* map of a community small parts, redraw them, and study them so to speak under the microscope. Another type of derivative or secondary sociogram results if we pick from the map of a community large structures because of their functional significance, for instance, psychological networks. The mapping of networks indicates that we may devise on the basis of primary sociograms forms of charting which enable us to explore large geographical areas.

IV. CONCEPTS AND DISCOVERIES

Sociometry started practically as soon as we were in the position to study social structure as a whole and in its parts at the same time. This was impossible as long as the problem of the individual was still a main concern, as with an individual's relation and adjustment to the group. Once the full social structure could be seen as a totality it could be studied in its minute detail. We thus became able to describe sociometric facts (descriptive sociometry) and to consider the function of specific structures, the effect of some parts upon others (dynamic sociometry).

Viewing the social structure of a certain community as a whole, related to a certain locality, with a certain physical geography, a township filled with homes, schools, workshops, the interrelations between their inhabitants in these situations, we arrive at the concept of the psychological geography of a community. Viewing the detailed structure of a community we see the concrete position of every individual in it, also, a nucleus of relations around every individual which is "thicker" around some individuals, "thinner" around others. This nucleus of relations is the smallest *social* structure in a community, a *social atom*. From the point of view of a descriptive sociometry, the social atom is a fact, not a concept, just as in anatomy the blood vessel system, for instance, is first of all a descriptive fact. It attained conceptual significance as soon as the study of the development of social atoms suggested that they have an important function in the formation of human society.

Whereas certain parts of these social atoms seem to remain buried between the individuals participating, certain parts link themselves with parts of other social atoms and these with parts of other social atoms again, forming complex chains of interrelations which are called, in terms of descriptive sociometry, psychological networks. The older and wider the network spreads the less significant seems to be the individual contribution toward it. From the point of view of dynamic sociometry these networks have the function of shaping social tradition and public opinion.

It is different and more difficult, however, to describe the process which attracts individuals to one another or which repels them, that flow of feeling of which the social atom and the networks are apparently composed. This process may be conceived as *tele*⁴. We are used to the notion that feelings emerge within

⁴See discussion of concept of tele on p. 16 (ftn.), 19 (ftn.), 70 ff. of this journal.

the individual organism and that they become attached more strongly or more weakly to persons or things in the immediate environment. We have been in the habit of thinking not only that these totalities of feelings spring up from the individual organism exclusively, from one of its parts or from the organism as a whole, but that these physical and mental states after having emerged reside forever within this organism. The feeling relation to a person or an object has been called attachment or fixation but these attachments or fixations were considered purely as individual projections. This was in accord with the materialistic concept of the individual organism, with its unity, and, we can perhaps say, with its microcosmic independence.

The idea that feelings, emotions or ideas can "leave" or "enter" the organism appeared inconsistent with this concept. The claims of parapsychology were easily discarded by it as unfounded by scientific evidence. The claims of collectivistic unity of a people appeared romantical and mystical. This resistance against any attempt to break the sacred unity of the individual has one of its roots in the idea that feelings, emotions, ideas must reside in some structure within which it can emerge or vanish, and within which it can function or disappear. These feelings, emotions and ideas "leave" the organism; where then can they reside?

When we found that social atoms and networks have a persistent structure and that they develop in a certain order we had extra individual structures—and probably there are many more to be discovered—in which this flow can reside. But another difficulty stepped in. As long as we (as auxiliary ego) drew from every individual the responses and materials needed, we were inclined—because of our nearness to the individual—to conceive the tele as flowing out of him towards other individuals and objects. This is certainly correct on the individual-psychological level, in the preparatory phase of sociometric exploration. But as soon as we transferred these responses to the sociometric level and studied them not singly but in their interrelations, important methodological reasons suggested that we conceive this flowing feeling, the tele, as an inter-personal or more accurately and more broadly speaking, as a *sociometric structure*. We must assume at present, until further knowledge forces us to modify and refine this concept, that some real process in one person's life situation is sensitive and corresponds to some real process in another person's life situation and that

there are numerous degrees, positive and negative, of these inter-personal sensitivities. The tele between any two individuals may be potential. It may never become active unless these individuals are brought into proximity or unless their feelings and ideas meet at a distance through some channel, for instance, the networks. These distance or tele effects have been found to be complex sociometric structures produced by a long chain of individuals each with a different degree of sensitivity for the same tele, ranging from total indifference to a maximum response.

A social atom is thus composed of numerous tele structures; social atoms are again parts of still a larger pattern, the psychological networks which bind or separate large groups of individuals due to their tele relationships. Psychological networks are parts of a still larger unit, the psychological geography of a community. A community is again part of the largest configuration, the psychological totality of human society itself.

V. THE STRATEGIC ROLE OF SOCIOMETRY AMONG THE SOCIAL SCIENCES

A full appreciation of the significance of sociometry for the social sciences cannot be gained unless we analyze some of the most characteristic developments in recent years. The one development is along Marxist lines as elaborated especially by George Lucacs (3) and Karl Mannheim (4). The social philosophy of these students is full of near-sociometric divinations. They stress the existence of social classes, the dependence of ideology upon social structure. They refer to the position of individuals in their group, and to the social dynamics resulting from the changing of the position of groups in a community. But the discussion is carried on at a dialectical and symbolical level, giving the reader the impression that the writers had an intimate and authoritative knowledge of the social and psychological structures they are describing. They present social and psychological processes which are supposed to go on in large populations. But their own intuitive knowledge of group structure and knowledge which they had assimilated from social and psychological reading shines through their own literature. These large generalizations encourage *pseudo*-totalistic views of the social universe. The basic social and psychological structure of the group remains a *mythological* product of their own mind, a mythology which is just as much a barrier to the progress

from an old to a new social order as the fetish of merchandise was before Marx's analysis of it. The dialectical and political totalists have reached a dead-end. A true advance in political theory can not crystalize until more concrete sociometric knowledge of the basic structure of groups is secured.

The economic situation of a group and the dynamic influence it has upon the social and psychological structure of that group cannot be fully understood unless we also know the social and psychological situation of this group and unless we study the dynamic influence they have upon its economic situation. Indeed from the sociometric point of view the economic criterion is only *one* criterion around which social structure develops. Sociometric method is a *synthetic* procedure which through the very fact of being in operation releases all the factual relationships whether they have an economic, sociological, psychological or biological derivation. It is carried out as one operation. But it has several results: it secures knowledge of the actual social structure in regard to every criterion dynamically related to it, the possibility of classifying the psychological, social and economic status of the population producing this structure, and early recognition of psychological, social and economic changes in the status of this population. Knowledge of social structure provides the concrete basis for rational social action. This should not be surprising, even to staunch believers in the old dialectic methods. As long as it appeared certain that all that counts is the knowledge of economic structure, all other structural formations within society could be considered in a general manner intimating at random how the economic motive determines them. An economic analysis of every actual group was all that seemed necessary. Since the more inclusive sociometric technique of social analysis has developed which attacks the basic social structure itself, the possibility of a new line of development appears on the horizon. From the sociometric angle the totalism of the new-Marxists appears as flat and unrealistic as the totalism of Hegel appeared to Marx. Compared with the *elan* of the totalistic schools of thought, sociometric effort may seem narrow. Instead of analyzing social classes composed of millions of people, we are making painstaking analyses of small groups of persons. It is a retreat from the social universe to its atomic structure. In the course of time, through the cooperative efforts of many workers, a total view of human society will result again, but it will be better founded. This may be a deep fall after so

much dialectic conceit, but it is a strategic retreat, a retreat to greater objectivity.

A different sort of symbolism comes from other lines of development which deal largely with psychological theory. An illustration of this trend is a recent phase of the Gestalt school. Thus J. F. Brown schematizes social structures and social barriers which no one has empirically studied (1). A conceptual scheme may become just as harmful to the growth of a young and groping experimental science as a political scheme. There are many links in the chain of interrelations which can not be divined. They have to be explored concretely in the actual group. It is not the result of a study which concerns us here, for instance whether it approximates the probable factual relations or not, but the contrast between empirical and symbolical methods of procedure. We have learned in the course of sociometric work how unreliable our best divinations were in regard to social structure. Therefore we prefer to let our concepts emerge and grow with the growth of the experiment and not to take them from any *aprioristic* or any non-sociometric source.

VI. DEGREE OF SOCIOMETRIC CONSCIOUSNESS

The best test of the damage done by any sort of symbolical concept of social structure is to come face to face with the crucial experiment itself, a worker entering a group, however small or large, with the purpose of applying to it sociometric procedures. The introduction of sociometric procedure, even to a very small community, is an extremely delicate psychological problem. The psychological problem is the more intricate the more complex and the more differentiated the community is. On first thought one would be inclined to minimize the difficulties involved. Sociometric procedures should be greeted favorably as they aid in bringing to recognition and into realization the basic structure of a group. But such is not always the case. They are met with resistance by some and even with hostility by others. Therefore a group before submitting to the test should be carefully prepared for it.

Sociometric techniques have to be fashioned in accord with the readiness of a certain population for sociometric grouping, in accord with their maturity and their disposition towards the test which may vary at different times. This psychological status of individuals may be called their degree of *sociometric consciousness*. The resistance against sociometric procedures is often due

to psychological and educational limitations. It is important for the field worker to consider the difficulties one by one and to try to meet them.

The first difficulty which one ordinarily meets is ignorance of what sociometric procedure is. A full and lucid presentation, first perhaps to small and intimate groups, and then in a town meeting if necessary, is extremely helpful. It will bring misunderstandings in regard to it to open discussion. One reaction usually found is the appreciation of some that many social and psychological processes exist in their group which have escaped democratic integration. Another reaction is one of fear and resistance not as much against the procedure as against its consequences for them. These and other reactions determine the degree of sociometric consciousness of a group. They determine also the amount and character of preparation the group members need before the procedure is put into operation.

In the course of its operation we can learn from the spontaneous responses of the individuals concerned something about the causes underlying their fears and resistance. In one of the communities tested some individuals made their choice and gave their reasons without hesitancy; others hesitated long before choosing; one or two refused to participate at all. After the findings of the test were applied to the group a frequently chosen individual was much displeased. He had not received that man as neighbor with whom he had exchanged a mutual first choice. It took him weeks to overcome his anger. One day he said smilingly that he liked the neighbor he had now and he would not change him for his original first choice even if he could. There was another individual who did not care to make any choice. When the chart of the community was laid out it was found that in turn none of the other individuals wanted him. He was isolated. It was as if he guessed that his position in the group was that of an isolate; therefore he did not like to know too much about it. He did not have the position in the group he would like to have and so he thought it better perhaps to keep it veiled.

Other individuals also showed fear of the revelations the sociometric procedure might bring. The fear is stronger with some people, and weaker with others. One may be most anxious to arrange one's relationships in accord with actual desires; another may be afraid of the consequences. For instance, one of the persons remarked that it made him feel uncomfortable to say whom he liked for a co-worker. "You can not choose all

and I do not want to offend anybody." Another person said, "If I don't have as a neighbor the person I like, i. e. if he lives farther away, we may stay friends longer. It is better not to see a friend too often." These and other remarks reveal a fundamental phenomenon, a form of inter-personal resistance, a resistance, against expressing the preferential feelings which one has for others. This resistance seems at first sight paradoxical as it crops up in face of an actual opportunity to have a fundamental need satisfied. An explanation of this resistance of the individual versus the group is possible. It is, on the one hand, the individual's fear of knowing what position he has in the group. To become and to be made fully conscious of one's position may be painful and unpleasant. Another source of this resistance is the fear that it may become manifest to others whom one likes and whom one dislikes, and what position in the group one actually wants and needs. The resistance is produced by the extra-personal situation of an individual, by the position he has in the group. He feels that the position he has in the group is not the result of his individual make-up only but chiefly the result of how the individuals with whom he is associated feel towards him. He may even feel dimly that there are beyond his social atom invisible tele-structures which influence his position. The fear against expressing the preferential feelings which one person has for others is actually a fear of the feelings which the others have for him. The objective process underlying this fear has been discovered by us in the course of quantitative analysis of group organization. The individual dreads the powerful currents of emotions which "society" may turn against him—it is fear of the psychological networks. It is dread of these powerful structures whose influence is unlimited and uncontrollable. It is fear that they may destroy him if he does not keep still.

The sociometrist has the task of breaking down gradually the misunderstandings and fears existing or developing in the group he is facing. The members of the group will be eager to weigh the advantages which sociometric procedure is able to bring to them—a better balanced organization of their community and a better balanced situation of each individual within it. The sociometrist has to exert his skill to gain their full collaboration, for at least two reasons: the more spontaneous their collaboration, the more valuable will be the fruits of his research, and the more helpful will the results become to them.

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SOCIOMETRIC PLANNING OF A NEW COMMUNITY¹

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INTRODUCTION

Centerville is a Resettlement Administration village not far from a large industrial center in the Middle West. It originated in November 1933 as a project of the former Subsistence Homesteads Division of the Department of Interior. In May 1935 the Resettlement Administration was created by executive order "To administer approved projects involving resettlement of destitute or low-income families from rural and urban areas, including the establishment, maintenance and operation, in such connections, of communities in rural and suburban areas," (1) and Centerville along with 78 subsistence homesteads projects was transferred to the Division of Suburban Resettlement of the Resettlement Administration for completion.

Centerville is one of the many communities of the Resettlement Administration built "on the outskirts of urban areas for low-income city workers and suburban farmers." (1) Planned to accommodate about 250 workers and their families, Centerville offers "to house low-income families and to enable them to supplement their income by agricultural activities," (1) believing "that cooperative activities would ultimately provide a large proportion of these families with a means of being self-sustaining." (1) The Resettlement Administration through its Economic Development Section "has attempted to promote industrial development, trying to attract private industries in some cases, and organizing cooperative procedure in others."

Designed to improve the economic and social status of urban factory workers living in concentrated industrial centers, with their attendant sweatshop working conditions and slum living conditions, Centerville is a new form of domestic colonization, aimed to provide a measure of economic security for its fami-

¹Gertrude Franchot Tone, Advisory Research Board, Beacon Hill, has made this article possible through her collaboration in the analysis and organization of the material.

The material in this paper was gathered by the writer while living and participating in the life of the community. He has not been employed by the Resettlement Administration, and this paper in no way reflects the views of the Resettlement Administration.

lies. In order to absorb leisure time and periods of enforced idleness in the factory, this project, like many other Resettlement Administration communities, will try to demonstrate the benefits inherent in combining industrial work and subsistence homesteading.

Centerville is unique in another respect—which is the subject of this paper. For the first time in twenty years since Moreno began to develop the application of his sociometric techniques in European resettlement programs during the World War, sociometric principles have been applied to an open community. (2)

In Centerville sociometric techniques were specifically applied by the Family Selection Specialist of the Resettlement Administration, to the problem of resettling the first occupants on the ground—154 people in 35 families. The population test followed by sociometric assignment, was applied in the distribution of individual houses in the project in order to promote more harmonious neighborhood structures within the budding colony. The hit-or-miss method of assignment of the typical real estate development was thus avoided.

In America, since 1931, sociometric techniques have found experimental and practical application in closed communities—in school and institutions. Dr. Moreno's efforts since 1931 have been directed toward the application of sociometric testing and assignment in open communities in the United States. Today the federal government in the assignment of houses in the Resettlement Administration's Centerville project, has put into practice sociometric techniques.

PRE-SETTLEMENT SITUATION OF THE CENTERVILLE PROJECT

There are two applications of sociometric techniques that may be used in the pre-settlement stage of a community project, both of which lend themselves to the projects of the federal government in its resettlement program.

The first involves the resettling of a comparatively large group of people usually culled from several points or villages within a large area. Town meetings are held in which the applicants for resettlement are given a chance to indicate the people with whom they prefer to live in the new community. They state their choices, giving reasons, and the results are assembled in a sociometric chart. Leaders with their following most likely

to constitute well balanced kernels in the community become visible in the sociogram, which actually becomes a social map, made by the sociometric investigator on the basis of the expressed choices of each family. Psycho-geographical maps showing structures important for social balance can then be made for each village. The potential leaders, then, of each village are brought together in a face-to-face meeting. In accordance with their expressed preference for one another the project quota is filled with these integrated groupings of people well known to each other.

The second technique of pre-settlement procedure may be applied to the resettlement situation in which are involved a smaller group of applicants who are unknown to each other. Small group meetings become the basis for the formation of harmonious community structures. This technique was applied to the Centerville Project.

As a psychological preparation for community life, as well as for educational and informational purposes, frequent group meetings for about fifteen families at a time were held in a large city accessible to the applicants during a period of almost one year before the project was ready for occupancy. One hundred and ninety-eight families (the project was prepared for 250 families) participated in these meetings, which, of course, included the thirty-five families considered here. The group meetings, often attended by the whole family, served to foster personal and social contacts, with their fabric of criss-cross attractions and repulsions. Lines of cleavage were noted. Friendships were formed on the basis of the spirited discussions usually generated by the Family Selection Specialist or other project officials.

With the completion in July 1936 of the first 35 houses, thirty-five families totaling a hundred and fifty-four persons were chosen for occupancy. The determination of these first thirty-five families was based primarily on the need for satisfactory personnel for factory operations.

In the pre-settlement situation in Centerville all of the thirty-five families accepted as prospective settlers were unknown to each other before applying for membership to the colony, except in a few cases where the family heads had had common employment contacts in the industry. All the families were residents of a large neighboring city.

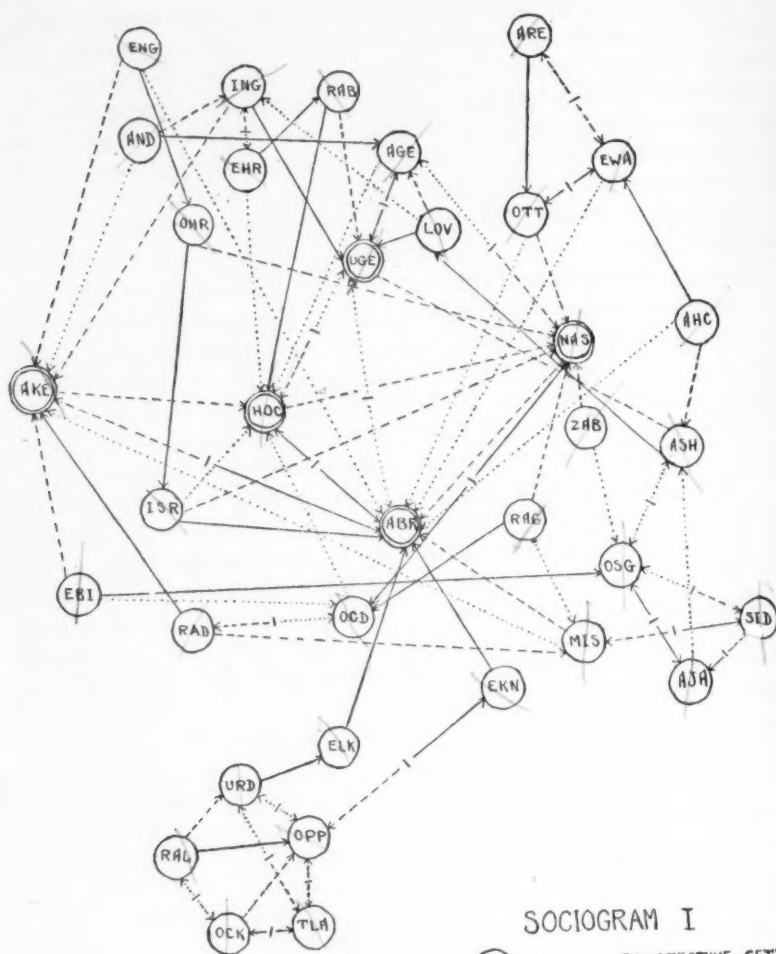
In approaching the problem of assignment of houses to the individual families, the Family Selection Specialist deemed it advisable to apply sociometric principles and procedures as far as conditions would permit. In consideration of the personal and family welfare of the colonists, the population test, a form of sociometric testing, was utilized in the determination of the house assignments to the first thirty-five homesteaders. The test was based on the criterion of the neighbor preference of each family.

Leader individuals and their following were noted. The former included several applicants who had long been identified with the project in its early struggles for realization. Some others were highly regarded for their ability to uphold their convictions in discussions, and others were favored for their personality characteristics. On the whole it may be said that, in spite of the low acquaintance volume and the limitations on vital criteria in the relationships of the future colonists during the pre-settlement period, there was adequate basis for assignment of houses based on a sociometric population test. The thirty-five prospective settlers were agreed that a test based on their neighbor preferences was both an individualistic and democratic process of selection. They felt that they were not to be moved like cattle, but were taking an active part in a matter of great importance to them.

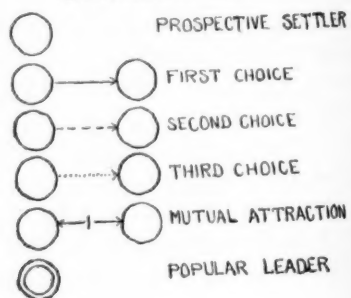
The families were asked to submit a secret ballot indicating three neighbors in the order of choice, at the first, second, and third level. The Family Selection Specialist stressed the fact that the preferences were to constitute a composite reaction of the whole family. Sociogram I expresses graphically the choices of the families. The structure of affinities of one family for another becomes clear. Individual centers of attraction, mutual and unreciprocated attractions, and unchosen families are all indicated in the chart. A veritable network of forces, attractions and repulsions are delineated. The sociogram expresses the spontaneous activations that came out of the group meetings.

Motivations that were evident within the whole group before the settlers were on the ground were, of course, personal and social likes and dislikes. A few ambitious souls made more or less successful attempts to influence certain family heads in the neighbor preference vote.

We may regard, too, the common drives that underlay the



SOCIOGRAM I



desire of the families for a homestead as a motivating force in any group alignment during the pre-settlement stage. These deeper motives include: the desire to seek an escape from the turmoil, congestion and slums of city life, the desire to gain the advantages of rural life for rearing children, to engage in agricultural pursuits as an avocation (usually associated with rural backgrounds in the family tradition), to attain economic security through the project, to build a community which would serve to foster and develop certain ethnic cultural patterns, to own a home, to realize a deep need to assume leadership, to experience adventure, to make another start after chronic failure in life, and to live and work in a cooperative community.

GROUPINGS ON BASIS OF SOCIOGRAM I²

On the basis of the choices cast and recorded in Sociogram I the Family Selection Specialist discerned besides the congested tele-complex about the five most popular leaders, Abrill, Hochs, Ugert, Nash, and Akerman, a comparative thinning of choices to the other thirty families. The Family Selection Specialist knew that one or two of these men had been associated with the project from its inception several years before, and others were among the first applicants. Three men, Ogden, Ager, and Radcliffe while not attaining in the sociogram the popularity of the first five were regarded highly for their leadership and activity as well as vital interest in project affairs. These eight men were easily classified in a leader group.

The Family Selection Specialist also could discern five well defined sub-groups within the whole structure. The thinning of choices going to families other than the eight leaders ends entirely before it reaches the six families which receive no choices. He had no difficulty in placing these isolated families in a subgroup. He also knew that during the period of group meetings in the city economic and industrial motivations had been stimulated and were therefore potent factors in the choices. The thirty-five families chosen to be first settlers were for the most part skilled workers. As Sociogram I reveals, the six workers, Elkins, Ralston, Oppenheim, Urdman, Tlasty, and Ocker form a mutually attracted group, primarily on the basis of their specialized craft, drafting. These were treated as sub-group 1.

The more religious families Mistol, Osgood, Sidel, and Ajax

²All names of settlers, the name of the village and the types of occupation are fictitious.

constituted a well-defined quadrangle in the Sociogram, bound together by mutual chains of attractions. These families were considered as sub-group 2 in the sociogram.

Among the workers the usual display of loyalty along craft lines was in evidence. There were engineers, machinists (representing the majority of the workers), foundry men, and hoisters. Three families, all machinists, were known to each other before applying for homesteads. They are Arens, Otterman and Ewald, who formed the nucleus of sub-group 3, which was made to include also: Isring, Ashley and Ohrbach, one hoister and two machinists. The isolated families Zablow, Ebinger, Anderson, Ahcavy, Engel and Ragov made up sub-group 4.

Five families, constituting a related group built around two leader individuals, Abrill and Akerman, form sub-group 5. They are Ekner, Ingersoll, Love, Ehrly, and Raboy. Although such a grouping was not in full accord with the choice of the two leaders, the desires of the strong in this case were considered secondary to the needs of all the other less strong who had chosen them. The sociometric problem as presented by Sociogram I was met in the only logical way by breaking up the group of most popular leaders so as to place the sub-groups in as advantageous a manner as possible in the houses which had been made available for them in the new community.

The number of choices appearing in Sociogram I is ninety-eight. The distribution of choices is as follows: Leader-group, 52; Sub-group 1, 15; Sub-group 2, 14; Sub-group 3, 10; Sub-group 4, 0; Sub-group 5, 7.

ACTUAL PLACEMENT OF SETTLERS IN HOMESTEADS

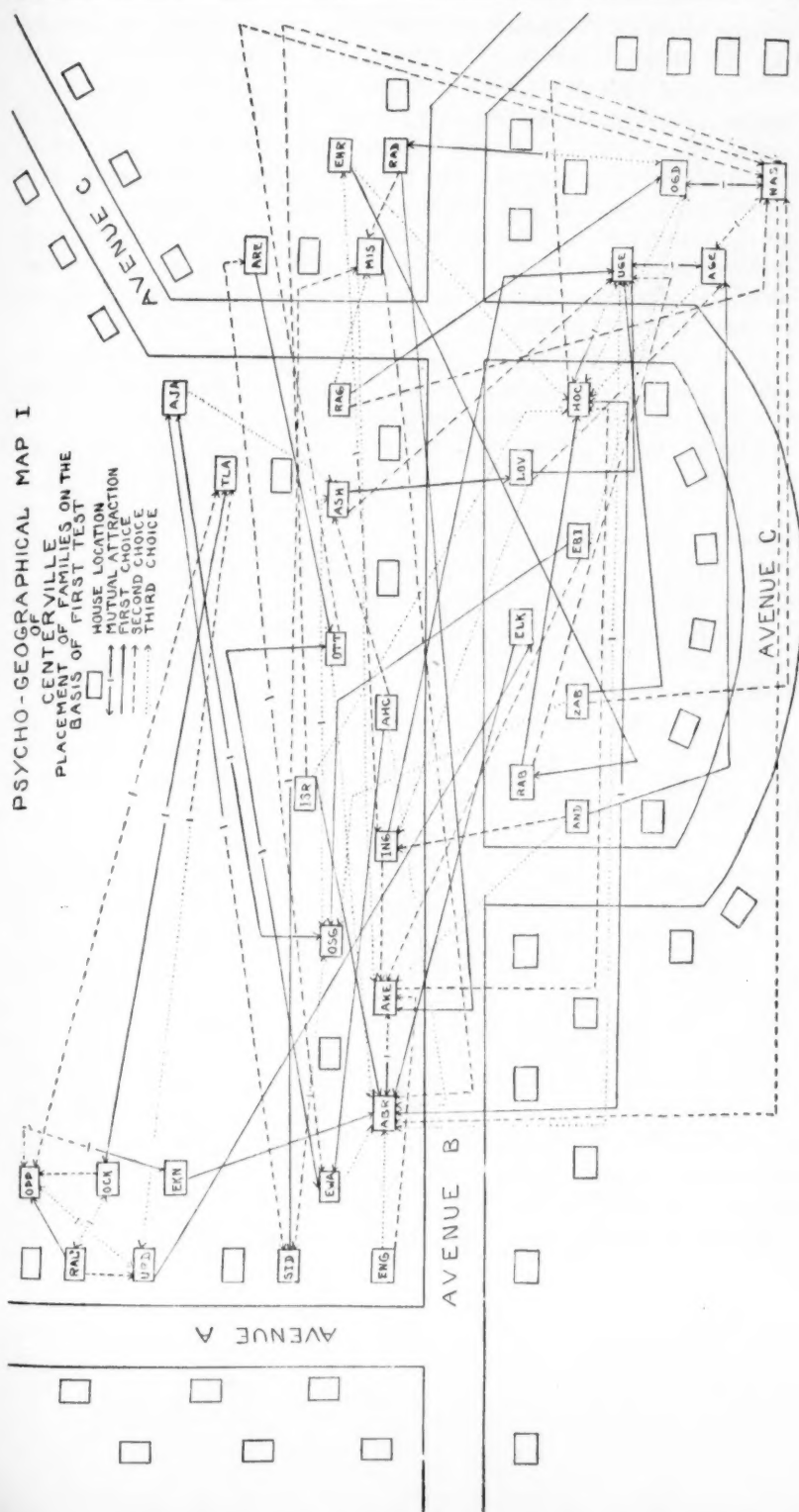
Psycho-geographical Map I shows the actual geographical assignment of houses, with all degree of mutual choices and unreciprocated choices of the neighborhood selection test superimposed. It should be noted that the houses are set about a hundred feet apart (except in seven cases where two are connected by adjoining garages), and all are in one line, about the same distance from the roadway. In the map the houses are offset merely for purposes of clarity in drawing the lines of expressed choices.

The thirty-five available houses were divided into six geographical units, five units containing six houses and one unit containing five houses. Every family was assured a location if

PSYCHO-GEOGRAPHICAL MAP I

CENTERVILLE
PLACEMENT OF FAMILIES ON THE
BASIS OF FIRST TEST

HOUSE LOCATION
MUTUAL ATTRACTION
FIRST CHOICE
SECOND CHOICE
THIRD CHOICE



not next door to its choice at least within a restricted area along with the other definitely related families of his group.

The most popular leader Abrill (12 choices) and the least popular, Akerman (17 choices), were placed as neighbors in a position where, as Psycho-geographical Map I shows, they both are centrally located among their large following. The other six leaders, the popular leaders Hochs, Ugert, and Nash, and the minority leaders Ogden, Ager, and Radcliffe were placed as close neighbors about the cross-roads of Avenue B and Avenue C, Radcliffe tying into the group by being placed across the road from Ogden.

Abrill and Akerman, in their central position on Avenue B have as neighbors Ingersoll, Engel, Ewald, and Osgood. Across the road are Zablow, Anderson, Raboy, and Ebinger.

Sidel and Ekner are also in their neighborhood. Beyond them are four of the five draftsmen who formed a closed pentagon in the sociogram, Urdman, Ralston, Oppenheim and Ocker. Tlasty had to draw a smaller house than was available in the locale of his co-workers since Mr. and Mrs. Tlasty were without others in their family. As Psycho-geographical Map I shows, the placement took them far beyond the object of their reciprocated choices. We note later how this couple adjusted in their placement.

The religious group also suffered somewhat from the need for adjusting the size of the family to the number of rooms. Ajax and Mistol received satisfactory assignments together, but Osgood and Sidel found themselves far removed from their choices. They made interesting adjustments.

The partially related sub-group 3, Arens, Otterman, Isring, Ashley, and Orbach³ were placed together almost as a unit. Ewald of this group we have noted as a neighbor of Abrill and Akerman, somewhat apart from the rest. Arens also was separated from them. These adjustments had to be made because of the disharmony in the size of some families. Ahcavy of sub-group 4 gets a house in the neighborhood in which all the above families live, which was a fortunate placement. Ewald and Ahcavy knew each other in the city. Love and Ehrly are placed adjacent to the group of leaders about the four corners of Avenue B and Avenue C. Rago, of the unchosen, is on Avenue C across the road from his third choice Mistol. Elkins,

³He did not take the house assigned to him in the settlement.

isolated from his choices, is opposite Ahcavy on the north side of Avenue B between Ebinger and Anderson.

After the houses were allocated it was agreed that all the thirty-five families were privileged to exchange houses among themselves. No exchanges of this kind were made. A serious limitation to an ideal distribution of houses based on choices of the inhabitants was the fact that most of the houses had five rooms while some had six. As a result, in three instances, families of two or three people, finding themselves in possession of six-room houses, on the basis of the above procedure, voluntarily relinquished their houses to larger families. Each change, of course, involved the removal of two families from their related sub-group.

It may be argued here that a thorough application of sociometric principles would have dictated quite another approach in the planning and building of the project. In this latter case the prospective occupants would have projected the houses and not vice versa. In this respect a purely mechanistic point of view seemed to have guided the planning of the construction, whereas a sociometric point of view would have emphasized the psychological needs of the inhabitants. The latter procedure would be, first to determine the position of each family in the psychological structure and then to build the houses for each family's needs.

THE SECOND TEST: CRITERION AND TECHNIQUE

After six months of living in Centerville a second survey of the same first thirty-four families was made to ascertain the psycho-geographical position of the families and to note progress, regression or standstill of community interrelations. The criterion used in this test must be classified as a "near sociometric" criterion, since it was not based on an interrelational situation which could be changed in order to satisfy the choices expressed in the test. The families were asked to assume that they might be able to enjoy a reassignment of houses, and that therefore they had the opportunity again to choose three neighbors beside whom to live. In contrast to the criterion in the pre-settlement test when the houses were still to be assigned, this second criterion is "weak."

The preferences of the colonists were not discovered by calling them to a meeting of the entire group for that purpose. The

data for the second sociogram was gathered for the most part in the course of informal conversation with individual homesteaders. In several instances older children in the families cooperated by getting the exact information required. Each family again was asked to make three choices at the first, second and third level of choice.

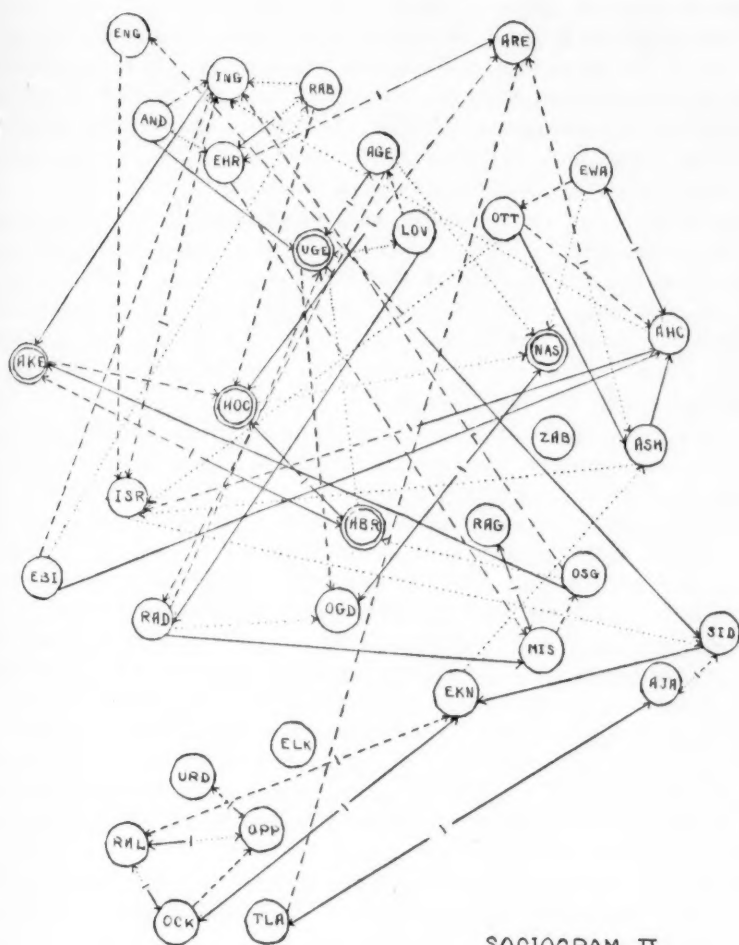
The data of the second test is presented in Sociogram II. The relative diagrammatic position of each family on Sociogram I has been retained in order that the fluctuations of choices and the trend of psychological currents may be more easily compared. In the interviews it was shown that the economic and social responsibilities of self-government and community affairs, the cumulative effects of cultural patterns in their impact on the individual, the complexity of inter-personal and inter-family relationships heightened by the isolation of the whole community, and the problems of continued loyalty to the group and to the ideals of a cooperative enterprise in the face of an unpredictable economy—all contributed to the flux of life in this pioneering colony.

ANALYSIS OF SOCIOGRAM II⁴

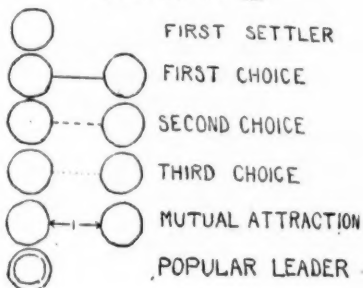
In the analysis of Sociogram II we will continue to observe the various groups we considered in the analysis of Sociogram I. To begin with, we find the eight leaders, Abrill, Hochs, Ugert, Nash, Akerman, Ogden, Ager and Radcliffe with a greatly reduced volume in their mutual tele-structure. There are now thirty-four of the first settler families making choices. With three choices to a family there are one hundred and two possible choices (at the first, second and third levels). The number of choices appearing on Sociogram II is eighty-one. The distribution is as follows: Leaders, 26; Sub-group 1, 9; Sub-group 2, 9; Sub-group 3, 15; Sub-group 4, 7; Sub-group 5, 15.

Only twenty-six of the choices are received by the eight men, who were formerly so strongly in leader positions. They have lost just half of the number of choices they received in the first test. We will take the first five leaders most popular in the first test, Abrill, Hochs, Ugert, Nash, and Akerman, and try to discover how much of the compact leader structure still remains.

⁴These notes about the settlers are supplemented by the discussion in the succeeding section, Comments on Psycho-geographical Maps.



SOCIOGRAM II



Abrill receives three choices—two firsts and a third. He still has a mutual first choice with Hochs and receives Akerman's first choice to whom he still returns his second. A third choice from Osgood (who was placed in the village as Abrill's near neighbor) also comes to Abrill. Akerman, his second choice, also is his neighbor. His own choices, in a first to Hochs and a third to Ugert, go clear across the village.

Hochs receives four choices, two firsts, his mutual first with Abrill across the village, and a first from Arens, also a few houses away, to whom he sends his second choice. Hochs still receives Akerman's second choice and also a second choice from Raboy, five houses from him on Avenue B. Hochs' own third choice goes to the leader Nash, who lives in the neighboring group to which Hochs belongs.

Ugert receives five choices, two of them firsts. The mutual first choices between him and Ager, his neighbor, are still exchanged. The other first to him is an unreciprocated first choice from Anderson. Ugert receives a second choice from Radcliffe but his own second goes to Ogden who is his neighbor. Abrill's third choice comes to Ugert, who has a mutual third choice with Love. Radcliffe and Love live across the road from Ugert.

Nash receives four choices, one first which is still the mutual first choice exchanged by him and Ogden, who was placed as his near neighbor in the village. Nash gets three other choices which are third choices, from Hochs, Ager and Ewald to whom he does not reciprocate. Ager is his near neighbor, Hochs lives across the road, Ewald lives at the other side of the village, but he works beside Nash at the factory machines. Nash makes only one choice which is to Ogden.

Akerman receives three choices, two of them first choices from Osgood and Ingersol, his near neighbors in the village. The other choice coming to Ackerman is a second choice from Abrill to whom Ackerman gives his first in return, as in the first test. Abrill and Akerman are near neighbors. Akerman still sends his second choice to Hochs, who does not live near him. He also still makes no third choice. He holds an important position in the factory.

Ogden receives three choices, one mutual first choice with Nash, a second choice from Ugert and a third choice from Radcliffe. He himself does not use his second and third choices.

Ager receives two choices. He still has his mutual first choice

with Ugert, who is his near neighbor. The other is a second choice from Love, who also lives near him on the opposite side of Avenue C. Ager's second choice goes to Radcliffe and his third choice to Nash. Ager is respected as a machinist.

Radcliffe receives two choices. One first from Love, and a second from Ager. His own choices go first to his near neighbor, Mistol, his second, to Ugert across the road and his third to Ogden, also a neighbor.

When we analyze the twenty-six choices given to the eight leaders in the second test we discover that sixteen of these choices come from within the leader group itself, leaving only ten which come from outside. In the first test the leader group, out of a total of fifty-two choices, received twenty-two from the leaders in the group itself. Thus we see that the leaders are comparatively faithful to each other, since formerly they gave each other twenty-two choices and in the second test they still give each other sixteen choices. The great loss of choices to the leaders come from outside. Now they receive only ten outside choices, though previously they received thirty. However, the proportion of their own choices to themselves is smaller. In the first test, of their own twenty-four choices, only twenty-three leader choices were used. (Akerman did not make a third choice.) Of these twenty-three leader choices twenty-two were given to members of their own group. In the second test out of their own twenty-four choices only nineteen were used (Akerman made no third choice, Nash and Ogden did not use their second and third choices, making a total of five unused choices.) Of these nineteen leader choices sixteen were given to their own group.

In Sociogram II we see Sub-group No. 1, the closely knit draftsmen of Sociogram I, beginning to be less cohesive as a unit. These families are Elkins, Urdman, Oppenheim, Tlasty, Ocker and Ralston. The tele-chain to the other members of the community, however, is different. A mutual first choice is exchanged from Ocker to Ekner (Head Engineer) and a mutual second choice from Ralston to Ekner. Tlasty exchanges mutual first choices with Ajax of the religious group. They are near neighbors. He gives a second choice to Arens. In the pre-settlement test the chains to the rest of the settlers went from Oppenheim—a first to Ekner, and from Urdman—a first choice to Elkins, who gave his first choice to the popular leader Abrill. In the pre-settlement test sixteen choices were used by the

Draftsmen of Sub-group I, fourteen of them within the group itself. Within this group in the second test out of a possible eighteen choices, seven choices are not used. Elkins makes no choices, Urdman does not make a second and third choice, and Tlasty and Oppenheim do not use their third choices. There are therefore only eleven recorded choices given by these workers in a common craft. Six are given inside the group and five are given to individuals outside the group. The six draftsmen received nine choices, six from inside and three from outside the group.

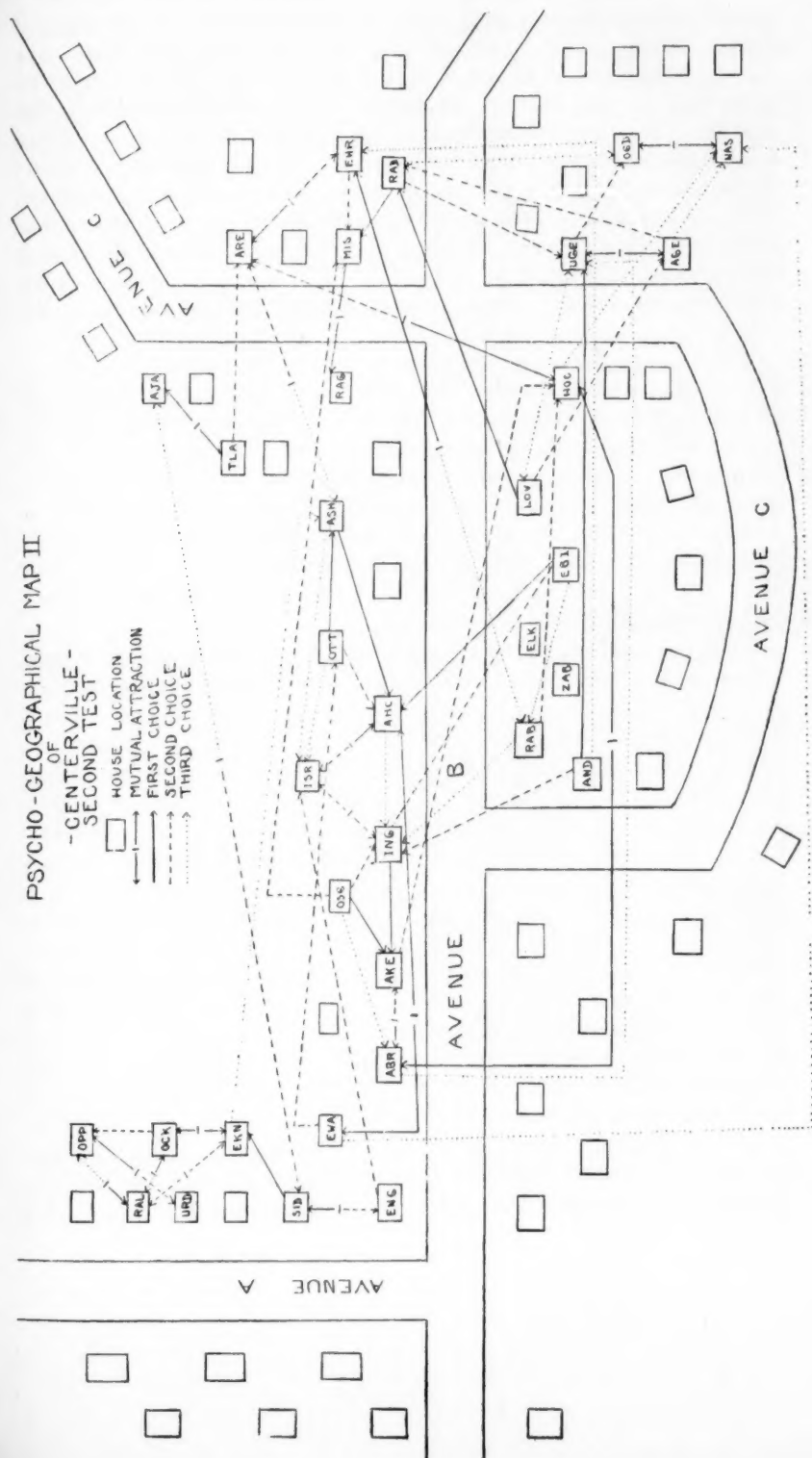
Elkins receives no choices and gives none. A former shop owner and manager, he held a supervisory position in his factory unit. He was no longer in this position at the time of the second test, which saw him rather in the background. Because of his managerial status before coming to the project, Elkins' experience and skill as a draftsman had been limited. He has found it necessary, however, to return to his trade and is regarded therein as an average worker. His position in the factory, together with the fact that his house in the village, among the isolates none of them of his trade, and the fact that he was not placed in relation to either of his two choices in the first test, provide two probable reasons for his position of complete isolation in the sociogram and psycho-geographical map of the second test. In the interview made while the second test was in progress, he refused, with good grace, to express any preferences for new neighbors.

Urdman receives only one choice, a second from Oppenheim. In the first test his three choices came from within his own group. (A second from Ralston, a mutual third from Oppenheim, and a third from Tlasty in return for his second choice.) His first choice then went to Elkins. In the neighborhood placement he has as neighbors all of his preferences except Tlasty and Elkins. Tlasty took a smaller house at the other side of the settlement. Urdman's first choice to his near neighbor, Oppenheim is his only choice now. In the factory Urdman's relations with the other workers are not happy. He is on a Board of Directors of one of the cooperative enterprises, however, though in his village and factory relations he is a near isolate.

Oppenheim receives three choices. A first choice from Urdman, a second from Ocker, a third from Ralston, all within his own unit and all of them neighbors and in his own sub-group. In the pre-settlement test his five choices came from Ekner

PSYCHO-GEOGRAPHICAL MAP II

OF
--CENTERVILLE--
SECOND TEST



outside his craft unit and from Ralston, Ocker, Urdman and Tlasty within. The two choices he has lost therefore are Tlasty, who lives away from him in the village, and Ekner away from him in the factory although in his neighborhood in the village. In the pre-settlement test Oppenheim's first choice went outside his own unit to Ekner. Oppenheim's own choices in the second test are within his own factory and neighborhood unit. They are a first to Ralston, a second to Urdman. He makes no third choice. In the factory Oppenheim is liked as a worker and respected as a leader. His position is due to his superior character, broad vision and enlightened interest in the colony.

Tlasty receives only one choice. This is a mutual first choice with Ajax, who is outside the craft unit and in the sub-group of the orthodox religionists. He and Ajax, however, are near neighbors in the village, although in the factory, Ajax, in another craft, is quite removed from Tlasty. Tlasty also chooses his near neighbor Arens, who in the factory is a machinist. Tlasty, therefore, in the second test has his choices completely outside the occupational unit of Sub-group No. 1. He is liked as a worker, however, because of his quiet unobtrusiveness and strong personality.

Ralston receives three choices; one from inside his own unit, a first from Oppenheim, and a third from Ocker; from outside, a second from Ekner, who is a near neighbor in the village. Ralston's own choices go, first to Ocker, his near neighbor, second to Ekner, and a third to Oppenheim, who is also a neighbor. His choices remain, therefore, within his factory and neighborhood groups. Ralston is regarded with indifference as a worker. He is liked but considered an ineffectual individual by others.

Ocker receives two choices, both of them firsts, one from Ralston inside the factory unit and a mutual first choice from Ekner from outside. Ocker and Ekner are near neighbors. Ocker's own choices besides his first to Ekner, go second to Oppenheim, and third to Ralston in response to Ralston's first to him. Ocker also, retains his choices within his factory and neighborhood groups. In the factory he is regarded with indifference as a worker. Like Ralston he is liked but considered ineffectual as a person.

In considering Sub-group 2, the religious families, Mistol, Osgood, Sidel and Ajax, we find that like the workers in Sub-group 1 there is a tendency to partial disintegration also. This

reflects the growth of social inter-penetration among the neighbors of the original placement. Of the twelve possible choices controlled by this group in the pre-settlement test only four go outside the group. In the second test only ten choices are made, seven of which go outside the group. As Psycho-geographical Maps I and II show, this is probably due to the fact that none of the religious families have houses in the village in the neighborhood of the others. This sub-group receives nine choices, three from within the group and six from outside. Mistol receives (on Sociogram II) three choices. One first from outside his group, a mutual first with Ragov⁵, whose house is across Avenue C from Mistol. He also receives a first choice from his near neighbor Radcliffe, also outside the religious group. Mistol's other choice comes from his near neighbor, Ehrly, outside Mistol's religious group too. Mistol's own second choice which in the pre-settlement test went to the popular leader, Abrill, now goes to Osgood in his own group of the religious families. Osgood does not reciprocate. Mistol makes no third choice. Mistol is not liked in the factory.

Osgood receives one choice, a second from Mistol of his own sub-group. His own choices go first to his neighbor Akerman, second to his neighbor Ingersoll, third to his neighbor Abrill. Osgood is considered a good worker but is not looked up to in the factory.

Sidel receives three choices, a first from his neighbor Engel to whom he returns his second. He receives a second from Ajax to whom he returns his third. He gets a third choice from Isring who works with him in the factory. Isring's own first choice goes to Ekner, who is his neighbor. Sidel is liked as a worker but is not considered a leader in the factory.

Ajax receives two choices. One is his mutual first choice with his close neighbor Tlasty and a third from Sidel to whom he returns his second choice. He makes no third choice. In the factory he is liked as a worker but not considered a leader.

The Sub-group 3 are the five machinist families, Arens, Otterman, Ewald, Isring and Ashley. On Sociograms I and II this group does not appear as a unit. They were classified together because of a few choices placed among each other and because of the common occupation of Arens, Otterman and Ewald.

In the pre-settlement test only sixteen of the eighteen choices

⁵Ragov, an isolate in the pre-settlement test, is not in the colony any more.

they controlled were used. Of these sixteen only six were given to members of the group, ten were given outside. In their placements in houses in the village (Psycho-geographical Maps I and II) Otterman, Ashley and Isring are in a group of houses near Abrill and Akerman, the leaders who were separated from the other leaders in the placement. Arens had to take one of the smaller houses away from this group. On Sociogram II the families in this group are more integrated in the community probably due to the placement techniques. The group of five controlled fifteen possible choices, and all fifteen of them were used, six of them within the group and nine outside. But four of these outside ones go to Ahcavy, who is a near neighbor of Otterman, Ashley, and Isring. The neighborhood placements have justified themselves for this sub-group. The sub-group received fifteen choices, eight of them from outside and seven from inside the group.

Arens receives four choices. A first from Ehrly to whom he returns his second. Ehrly is his near neighbor in the village. Arens receives a second choice from Hochs, to whom he returns his first, and he has a second choice from Ashley to whom he gives his third. Arens also receives a second choice from his neighbor Tlasty. Arens is a machinist and in the factory is regarded with indifference as a worker.

Ewald receives one choice which is a mutual first with Ahcavy. His second choice goes to Otterman, and his third choice goes to Nash. Ewald works between these two men in the factory. He is regarded with indifference as a worker. He is on one of the Boards of Directors and a member of the Civic Council.

Isring receives five choices. In the first test he received only one. Four of these choices come from his near neighbors. He has a mutual second choice with Ingersoll, his neighbor, a second choice from his neighbor Ahcavy, to whom he returns his first and a third choice from Engel also in his neighborhood. His own third choice goes to Sidel, a fellow hoister in the factory. Isring has an indifferent position as a worker.

Ashley receives three choices, a first from his neighbor Otterman, and two thirds, one from Arens who lives across the road, to whom he returns his second choice, and the other from Ekner who lives some distance from him. His own first choice goes to his neighbor Ahcavy, and his third to his neighbor Isring. Ashley has an undistinguished position in the factory as a machinist.

We will consider now Sub-group 4 consisting of Zablow, Ebinger, Anderson, Ahcavy, Engel, and Ragov, who were chosen by no one in the pre-settlement test. In the second test seven choices are given to them, but five of these seven are given to the Ahcavys from their neighbors, and one, a first choice from his neighbor Mistol is given to Ragov who is not now living in the community. One comes to Engel from his immediate neighbors the Sidels. The other three of this sub-group still receive no choices. Of the eighteen possible choices this group might have made, only twelve were used. Only one of their choices was given inside the group. This was a first choice from Ebinger to Ahcavy. The fortunate placement of Ahcavy and Engel in the situation in the village with the others near Abrill and Akerman will be discussed below.

Zablow receives no choices and gives none. In the second test he said he can live with anybody. Later he admitted that he did not get around enough to know anybody.

Ebinger receives no choices. His own three choices which he sent to the popular leaders in the pre-settlement test are given now first to Ahcavy who lives across the road, second to Ingersoll who is a leader in the factory and third to Raboy, beside whom he works in the shop. Ebinger is regarded with indifference by the workers. His choice to Raboy is unreciprocated.

Anderson receives no choices. His own choices go first to the leader, Ugert, second to Ingersoll who lives across the road, whom he also chose second in the pre-settlement test, and third to Ehrly, who lives at a distance in the village. In the factory as a machinist Anderson is also not well regarded. He works hard, but is slow.

Ahcavy receives five choices, four of them firsts. He has a mutual first choice with Ewald, whom he knew in the city and chose first in the pre-settlement test. The other three firsts are from his immediate neighbors, Ashley and Isring and from Ebinger across the street. Ahcavy receives a second choice from Otterman. Ahcavy's second and third choices go to near neighbors Isring and Ingersoll.

Engel receives one choice which is a second choice from the Sidels, which he returns with his first choice. The Sidels are close neighbors of Engels and to this fortunate placement and Mrs. Sidel's emotional expansiveness is due their reciprocal

relation. Engel also gives a second choice to Isring who is in the same neighborhood. He gives no third choice. His choices to the leaders Abrill and Akerman in the pre-settlement test he no longer gives to them although they are his neighbors in the village. In the factory as a machinist, he is regarded with indifference.

The last group, Sub-group 5, are the five families of Engel, Ingersoll, Love, Ehrly, and Raboy whose pre-settlement choices to Abrill and Akerman, the leaders, determined their classification in one group. In the placement technique they received houses as near as possible to these leaders. In the first test only three of thirteen choices made went inside to members of the group. Ten went outside the group to the leaders in that test. In the first test they received seven choices. In the second test the number of choices received by this group is increased to fifteen. Only three choices come from members of their own group and twelve come from outside the group. The number of choices made by these families is fourteen, but this time only three choices are given within the group itself. Eleven are given outside. Only five choices this time are given to the leader group. The other six are given for the most part to their present neighbors rather than leaders.

Ekner receives three choices, a mutual first with his neighbor Ocker, a mutual second with his neighbor Ralston, and a first from his neighbor Sidel. His own third choice goes to Ashley who lives at the other end of Avenue B. Ekner is highly regarded as an engineer. His position in the factory has been improved since he replaced another colonist in a managerial capacity.

Ingersoll receives six choices, four seconds and two thirds. This is the largest number received by any one individual in the second test and is double the number he got in the pre-settlement test. In the placement he received a house next to the leaders Akerman and Abrill, but he still receives no choice from them. He gets no first choices. He has a mutual second choice with his neighbor Isring and receives a second from his neighbor Osgood. He receives the second choice of Ebinger and Anderson across the street. He receives a third choice from his neighbor Ahcavy and a third from Raboy opposite him on Avenue B. His own first choice goes now to his neighbor, the leader Akerman instead of as before to the leader Ugert. He makes no third choice. Ingersoll is a leader in the factory and

is regarded as a very quick worker, though not as one whose work is of very high quality.

Love receives one choice, a third from the leader Ugert to whom he returns his third choice. Love's first choice goes to the leader Radcliffe, and his second to Ager. Love, as a machinist, is in an indifferent position. He is on the Board of Directors of one of the cooperatives and is active on the Civic Council.

Ehrly receives three choices, a first from Raboy, a fellow foundry man, a second from his neighbor Arens to whom he gives his own first choice, and a third choice from Anderson. Ehrly's second choice goes to his neighbor Mistol, and he gives his third choice to Raboy. He is on the Civic Council and is a member of one of its committees.

Raboy receives two choices, a third choice from Ehrly and a third from Ebinger. He gives his first choice to Ehrly and his second choice to Hochs, the leader whom he chose first in the pre-settlement test. He gives his third choice to Ingersoll. He is thought of with indifference in the factory.

COMMENTS ON PSYCHO-GEOGRAPHICAL MAPS

On Psycho-geographical Maps I and II is expressly the complex structure of psychological currents among the thirty-five families of the first settlers of Centerville which we have analyzed in Sociograms I and II. The choices are based on only one criterion, that of living as neighbors. Other psycho-geographical maps could be made of the expanding complex of life in the community which is still in an unfinished state. Since the first one hundred and fifty-four individuals, the first settlers, took their houses in the village, the number of individuals now settled in the project is over 300 contained in eighty families. Not only neighbor preference but also additional criteria, for factory, consumers' club, civic organization and other social activities offer themselves for sociometric testing. In view of the lack of other sociograms and psycho-geographical maps on which more precise information could be based, these further comments on the first settlers and their inter-relations are offered, based on Maps I and II and the interviews and observations which it has been possible to make in the community.

In comparing Sociograms I and II it is discovered that from the first to the second tests there is observable a considerable diversion of tele from the most popular leader group. The

tele goes to more obscure individuals, potential leaders who may become the kernel of a minority group. The observation of recent developments has clearly shown that in the course of the economic development of the community such a minority group is growing up. Now it is merely in negation of the co-operative ideology, but under favorable circumstances it may develop into opposition around an ideology which is more individualistic and more conservative.

The leaders in the first test still control all the chief positions in the administration of the cooperatives but their position in the tele structure has changed. This is not visible in the official structure but unofficially a new structure may be developing new leadership. Frictions and disagreements can be predicted by the analysis of the sociograms and maps. The disclosure of the dynamic patterns might lead to preventive measures.

In the wake of certain trying experiences of the first six months, with its admixture of high hopes and uncertain change, disappointment in old leaders was not unlooked for. Too, there was a gradual influx of new colonists with a small quota of leader individuals ready to assume community responsibility. May we however regard the unusual "leveling off" among the first thirty-five settlers as an indication of a strongly developed process of integration among them? Each of these families to a greater or lesser degree has been put through the tests that community leadership imposes. Individual differences, however, have become crystallized in a cleavage quite vital in its implications, since it would seem to reflect disharmony in terms of the management policies in the factory. Abrill, Hochs, Akerman, Radcliffe, Ugert, and Ager may be regarded as having a common ground of sympathy for broad, rather undefined co-operative goals. Ogden, with a following that includes, for the most part, families outside of the thirty-five considered here, shows serious disagreement as to the immediate course best calculated to attain economic stability for the factory workers. The minority group is not conspicuous for any articulated opposition policy.

It may be interesting to consider in rapid survey the members of the community.

Ogden is a man of very personable attributes. He is of serious disposition, and an indefatigable worker. He was one of the early applicants who showed intelligent interest in project affairs. Ogden has filled important positions both in the civic

and industrial areas of community life. Ogden's extreme popularity, which saw its growth during the months just before the second test, has waned somewhat. He is still regarded as a leader, however, and liked personally even by those who weigh his alleged shortcomings as a cooperator against his likable personality and sincerity.

The Nashs and the Ogdens are friends. The former are a quite ineffectual lonely couple. Their lives seem especially empty. She finds adjustment difficult in social and economic activities because of deep personal frustrations. He lacks conviction, but serves on one of the Boards of Directors, as well as Civic Organizations. Mr. and Mrs. Nash are proud to be living near Ogden, whom they respect for his ability, intellectual interests and popularity. The Ugerts' choice of Ogden is somewhat of the same calibre. Mr. Ugert did not choose Ogden, but Mrs. Ugert did. She is a colorful person whose interests do not include the community as such or its problems. She also regards Ogden as "an important person."

Ugert is one of the "old-timers" in the project. He is an engineer and is liked as a worker. He is also less fortunate as a leader in the second test, but he serves both on a Directors' Board and the Civic Council. The neighbors, Ugert and Ager, exchange mutual first choices. In the light of the course taken above by the Ogden and the Nash families, who flank the Agers in the village, we expect to find altered relationships here, and we do. Ager and Ogden living adjacently, in a double house, never really get together. The chasm between the self-contained Ogdens and the idealistic Agers became greater with Mrs. Ager's successful participation in the consumers' club.

Radcliffe's choice of Ogden is quite interesting. Mr. and Mrs. Radcliffe are a prominent couple in the community. As Sociograms I and II suggest, they are probably aristo-tele leaders (2, p. 163). About 49 years of age, with a past that has mellowed them, both are vital forces in the community. Mr. Radcliffe is officially prominent in civic and industrial matters. Mrs. Radcliffe, a woman of deep understanding and creative temperament, chose Ogden as a neighbor in both tests for the simple purpose of exerting her neighborly influence in educating this couple in the ways of cooperative living. Radcliffe holds a job which many of the workers begrudge him. There is additional antagonism engendered by the man's intellectual and social status as well as his position in the factory. With a varied

background of work experience he became very active in the early days of the project. In the shop he is regarded as apart from the workers, his personal aloofness contributing much to this feeling. Though aggressive as a defense against this jealousy against him, at heart he is a man of fineness and sensitivity, needing approval above all else. He is one of the few idealists, working for the establishment of the colony.

Returning to the larger group of leader individuals, we find Abrill, Hochs and Akerman retaining their closely-knit relationship through the period of the first and second tests. Indeed, the latter shows the triangular attraction between them to be identical in quality with their original structure.

Abrill has been an outstanding colonist before and since the project began. He gave without stint of his time and effort, and seemed altogether motivated by the highest cooperative ideals. He was quickly recognized as a potential leader and took his place on the Board of Directors of one of the cooperatives. His family also shared the high esteem of the colony, their participation in community affairs indicating that their lives, too, were significantly bound to the hopes and aspirations of the project. Both by experience and inclination the Abrill family seems well adapted to a communal rural-life.

The Abrill family was quickly resigned to its house location, although it still preferred in the second test the locale of the popular leader group. According to Mrs. Abrill the disappointment in not getting the desired locale was not as difficult to swallow as the embarrassment when other settlers realized the Abrills did not choose them.

After the first six months, which has been a crucial period in the life of the colony, Abrill boasts considerably less of a following. Some of the more thinking settlers felt Abrill was trying to do too much—to have a hand in every governing body. He lost some prestige, also, when he wanted to resign after being overruled in an important committee meeting. However, Abrill remains an important figure in community affairs, and his leadership is sought in vital matters. Abrill's manifold project duties demand his attention day and night. It may be said that in devotion to the project as expressed in his unceasing industry, Abrill is exceeded by no one. His experience in the establishment of the community has been a source of deep satisfaction to him.

The story of Hochs thus far is the story of a man with exceptional qualities as a homesteader, who was not quite equal to an assignment of weighty responsibility. Hochs' popularity in the first test was an accurate reflection of the man's position in the early days of the project. His importance as a member of the Board of Directors of one of the cooperatives was happily augmented by the regard in which he was held for his favorable personal attributes. He seemed altogether fitted for a leading part in the building of the community—a background of farming in the old country, some agricultural schooling in the United States, and a genuine interest in cooperative colonies as manifested by his application for admittance to a privately run colony now abandoned. During the period of his tenure in the responsible job given him, he became a harried, irritable man. He was on the verge of a nervous collapse when transferred to his usual job in the factory. He is generally respected as a worker. His former position still lends him importance among the workers, though he now works at a lathe at the very end of the machine section of the shop.

Mr. and Mrs. Hochs were bitterly disappointed because they could not have the Abrill family as a neighbor. They cultivated no real friends in the project, the disappointment of the couple being quite evident. However, Mrs. Hochs has found in Mrs. Arens, who lives across the road, one who most eagerly reciprocated the slightest friendliness. Abrill remains the one real choice of Mr. and Mrs. Hochs. Their choice of Nash in the second test was a mere formality—an expression of loyalty to another former leader. The Hochs at the time of the second test had made but one visit to the Nashs although the families were close neighbors for more than six months.

Akerman, also an early applicant for a homestead, is a plain person who is immensely liked for his jolliness, sociability, and common sense. He is no less admired for his sincerity and capacity for hard work. Mr. Akerman holds a supervisory position in the factory, which in itself bespeaks the respect and good fellowship which he commands. He is on the Board of Directors of one of the cooperatives, and on the Civic Council.

Akerman was also removed from the other leaders in the house allotment, and along with Abrill formed the nucleus of another structure. Mrs. Akerman was especially unhappy in the assignment since their house was connected by the garage to that of Osgood, a very religious family with four young chil-

dren. At the time of the second test, however, Mrs. Akerman had become reconciled to the neighbor with the "noisy" children and pointed out the good qualities of the Osgood family. Mr. Akerman's tele relation with Abrill is based on their common interests as leaders as well as their common disappointment in their house assignments. It is interesting to note here that Anderson, Engel, Ebinger, Mistol and Radcliffe—the five families who chose Akerman in the first test but not in the second are, with the exception of Radcliffe, quite negative characters whose chances of receiving Akerman's choice in return were close to zero. Akerman was Radcliffe's first choice in the first test, but the dissimilarity of the men in background, temperament, and ability was quite effectively brought out in the factory where both men held key positions.

It may be stated at the time of the second test Akerman's position in the community was stronger than it was six months ago. Having come through the test of performance, Akerman is one of the few people whose high position has not engendered ill-feeling or jealousy.

Ingersoll who receives the largest number of choices in the second test chooses Akerman in both tests. This is understandable in the light of the proximity of the two families on the ground. Ingersoll has a very good standing in the factory. He is a very quick worker, and may be classed with Akerman and Abrill as liked and respected as a leader. He is a member of the Civic Council and quite active on its committees.

In Ingersoll we see a man who has been "recalled to life," to quote his son. The latter is a leading individual among the younger generation in the colony. Mr. Ingersoll, a man of 45, was formerly in business for himself and a home owner. He lost the fruits of his life's work in 1929. Love of rural environment, gardening and desire for a fresh start brought this family to Centerville. Mr. Ingersoll thrived on the responsibilities of participation in community affairs. His wife is liked by everybody for her quiet hospitality and stable personality. As in the case of Abrill, Ingersoll's children, through their leadership in community affairs, both among the senior and junior elements, have done much to earn for the family the approbation of the settlers.

As stated earlier, placing Abrill and Akerman beyond the locale of the other leaders, although unpleasant, was sociometrically wise. Far from being hedonistic, sociometric principles

will dictate such sacrifices for the benefit of the whole structure. The therapeutic value of placing a strong individual near a follower who is isolated or nearly isolated was demonstrated in the present situation. Osgood, who shared the double house with Akerman, was likewise unsatisfied in the placement which took him away from the religious group. Placed among people notable in their activity and intelligent interest in community affairs, Osgood has himself changed. He has been one of the most enthusiastic pupils in the adult education classes, where his expanding interests have been manifest. He was recently elected to the Civic Council which governs the community life of the project. He is an officer in the Council and is active on its committees. He is showing an unusual interest in the development of his children through their participation in planned recreational activities. He maintains his life-long religious observances and sends his children to the extra-curricular religious school but Osgood himself has been attending the Saturday evening activities sponsored by the progressive adult school, which emphasizes history and English, and is interested in co-operative colonies for workers. Lastly, Osgood was of a definite mind in choosing his new, respected neighbors in the second test. The second test sociogram also shows Osgood deprived of the choices of his religious confreres, but qualitatively these folk are as a group inactive and inarticulate, indeed, somewhat cut off from the chief currents of the community. Osgood's proximity to Abrill and Akerman, as well as Ingersoll, another active colonist, has been instrumental in what seems to be the transformation of a backward, self-contained individual into an expanding, community-conscious citizen.

Considering further the religious individuals, it may be pointed out that the partial disintegration as revealed in the second test reflects the growth of social inter-penetration among the neighbors of the original placement. It is clear that the placement of Osgood under the strong influence of Abrill, Akerman, and Ingersoll had its repercussion in the breakdown of the closely knit religious structure. Ajax and Sidel, both former mutual attractions of Osgood, no longer choose him. Osgood prefers his more distinguished neighbors.

Ajax and Sidel however in spite of their separation, as indicated on Psycho-geographical Map II, have retained tele for each other. The strong character of Mrs. Sidel makes itself felt here. This woman, mother of four grown children, is defi-

nately of the old country. Both Mr. and Mrs. Sidel's greatest concern is the welfare of their children. He is a reserved, retiring, somewhat sullen man interested in little beyond his work and religious rites. She is a devoted mother and the kindest and most sympathetic of souls. Her emotional expansiveness is demonstrated in her reciprocated choice of Engel in the second test.

Mr. and Mrs. Engel are the most ordinary of folk, simple and rather peasant-like. An isolated family in the first test, Engel was assigned a house between Ewald and Sidel, not far from Abrill and Akerman. This placement in a rich soil, so to speak, has been of inestimable benefit to Engel. Whereas Mrs. Ewald, a younger woman, has been entirely indifferent and unresponsive to Engel's friendly overtures and calls, Mrs. Sidel has extended herself socially to the gratitude of Mrs. Engel. To illustrate Mrs. Sidel's neighborly thoughtfulness, Mrs. Engel related the story of a broken gas line in the kitchen of another neighbor who experienced quite a fright. Not long afterward, when Mrs. Engel in the course of the day failed to step out of doors, and was thus unseen by Mrs. Sidel, the latter came over to check on Mrs. Engel's health. Other friendly acts, as stepping over to accompany Mrs. Engel to a community meeting, have earned the latter's deepest appreciation. Thus Mrs. Sidel's capacity for emotional expansiveness has been therapeutically utilized in this house assignment.

Let us consider now the six draftsmen of Sub-group 1, five of whom formed almost an ideal pentagon in the first test. The same structure in the second test shows important changes in the relationships of the families. On the whole these workers have had a hard time, economically, during which social stresses and strains developed.

Mr. and Mrs. Tlasty, the elderly couple who had to occupy a smaller house geographically distant from the group, have also grown distant psychologically from them. This is an unusual couple, she being an old-fashioned, un-Americanized housewife seldom out of the kitchen, while he is a robust, simple but strong-minded, clear thinking person, without pettiness or prejudice. Both are retiring and inactive in the community, but are completely cooperative in their willingness to follow and learn. Socially, as economically, their needs are small. They have quite satisfactorily adjusted to their present locale, being satisfied with but two choices in the second test. Their first

choice is reciprocated by the first choice of Ajax with whom Tlasty shares a double house. In the Ajax family, the Tlastys have found people, more European than American, whose simplicity and wholehearted good will are worthy of note. In their quiet dignity and cooperativeness they make excellent timber for a colony such as this. Mr. Ajax, a large, lumbering man, differs from Mr. Tlasty in his strict adherence to old world customs and religious observances. The latter places no stock in religious practices but both men understand and appreciate each other. Tlasty is also attracted to Arens, a younger family across the road, who have missed very much the social outlets and contacts of the city.

Another point of change among these families centers around Urdman. Mr. Urdman is a serious progressive person motivated by ideals that envision the colony as a center of culture. Showing willingness, even eagerness to promote educational and cultural activities for the colony, Urdman's efforts seem to miscarry, and he reflects the picture of a disappointed man, somewhat disgruntled, who doubts the motives of the other settlers. Mrs. Urdman, an attractive woman of thirty-nine, feels herself rejected by the young women among the first settlers. Mrs. Urdman refused to choose more than one neighbor in the second test—obviously a technique of self-consolation to maintain a mental balance and to save face. Mr. Urdman is on the Board of Directors of one of the cooperatives.

Urdman is unwanted in the second test except by Oppenheim who has maintained an important position among the draftsmen. Mr. and Mrs. Oppenheim are quite young. Although not active he is vitally interested in the cooperative rural community, and especially devoted to agriculture as an avocation. Mrs. Oppenheim's "real friends" came into the project recently, she said, but they live at the other end of the project. Mrs. Oppenheim wanted younger people as neighbors but would now choose Mrs. Ralston, an elderly woman, because "she is like a mother to me." Until Mrs. Oppenheim appreciated Mrs. Ralston she was very lonely. The attraction between Oppenheim and Urdman was based on the comparative youth of both Mrs. Oppenheim and Mrs. Urdman and Mrs. Urdman's obvious need for companionship.

In considering the neighbors, Zablow, Love, Ebinger, Anderson and Raboy, all of them isolated or nearly isolated on Sociogram I, it is significant that except for the third choice

which Ebinger extends to Raboy, no attractions have been expressed between these five neighbors in the second test. Elkins, completely isolated now, is the sixth neighbor on the north side of Avenue B. On the other hand, Ahcavy and Engel, unchosen in the first testing, but assigned for house placement to more fruitful soil, sociometrically speaking, at least in the case of Ahcavy, have become centers of attraction (five choices in Sociogram II).

Raboy is a young man whose make-up shows the effects of a youth spent in revolutionary Russia. He is radical as well as rash. Regarded as somewhat irresponsible by the older men, Raboy actually needs responsibility and leadership. He is eager to learn and loves to argue. His friendship with Ehrly, another student-like colonist, who is a member of the Civic Council, was enhanced through their common participation in the adult education classes held in the project. Hence the mutual attraction in the second test. Ebinger's choice of Raboy is probably due to the fact of their common occupation in the factory.

Love is on the Board of Directors of one of the cooperatives, and on the Civic Council. In the first and second tests he received only one choice. He has shown a very healthy desire to be of use in the colony and is a different man in the community than in either his home or the factory.

Zablow is the last of the isolated individuals to be considered here. Zablow was unwanted both in the first and second tests. In the latter, unlike his neighbor Elkins who expressed a general dissatisfaction, Zablow was critical of the people who were "not the type" for the project. The settlers should be "pure, big people" and assume responsibilities as befits community builders. Zablow's great desire to be a good cooperator made it impossible for him to choose neighbors in the second test. He can live with anybody he said. He added, however, that people wore masks so that one really couldn't know them. Later he admitted that he didn't get around enough to know anybody. Zablow lives in the project with but part of his family and assumes considerable domestic responsibilities. He is considered a negative personality, but is regarded by those who know him better as "all right down deep." Zablow is not liked as a worker. He is considered slow. This, together with his difficult personality, gives him a position in the factory analagous to his place in the village.

Zablow's problem seems to be that of the intellectual belonger who is emotionally isolated. Nobody pays any attention to him. He is an idealist and a good person in a stressful personal situation seeing and feeling no tolerance for others of less idealistic turn of mind and character.

The Ahcavys have already been referred to as the family who, formerly isolated, showed in the second test next to the largest number of attractions, five, four of which were first choices. As the sociogram reveals, the Ahcavys were preferred by the families immediately adjacent to them, and Ewald whom they knew in the city. Both Mr. and Mrs. Ahcavy are inactive in the community, but they give the feeling of wholehearted willingness to do their share without a murmur.

The Isrings are another inactive family, younger than the Ahcavys. They are well liked for their simple unpretentious personalities. Almost isolated in the first test, the Isrings have found a place for themselves in the colony. Mrs. Isring expressed her happiness in the house assignment among families like Ingersoll and Ahcavy.

We feel it significant to note from the above that the leader individuals of the first test were active, participating figures in project affairs during the pre-settlement period and early days of project occupancy; whereas the newly developed centers of attraction among the first settlers are families in whom sociability, good neighborliness and mildness predominate.

The women and children in the project have played an important part. The children have helped to lessen the isolation of self-centered parents by making social life possible with other members of the community. It is recognized, too, that the younger people must be integrated for satisfaction of themselves if they are not to desert the project and seek their fortunes elsewhere.

The Consumers' Cooperative Club has been a woman's organization since the community began its existence in the summer of 1936. There are now eighty families in the project and practically all of the homesteaders are members of the Consumers' Cooperative. The Board of Directors consists of thirteen individuals, eight of whom are included in our first families. Mrs. Ager, Mrs. Radcliffe and Mrs. Nash have been active in this organization. Mrs. Love who formerly gave all her time and energy to the Consumers' Cooperative Club is

now no longer active but still serves on the Board of Directors.

Other women of the first settlers who are on the Consumers' Cooperative Board are Mrs. Akerman, Mrs. Elkins, Mrs. Ashley and Mrs. Isring. All four show a sincere desire to help in the cooperative efforts of the Consumers' Board. Mrs. Radcliffe exerts upon the others a stimulating as well as stabilizing influence. More important, Mrs. Radcliffe knows how best to enlist for the common good individuals of varying background and capacities. She combines the qualities of strong individualism with an expansive sense of cooperation which would utilize the good and overlook the poor in people. Her iron determination to make the colony a success, in terms of individual happiness and security, is not affected by her feeling that the people in the colony are, for the most part, "crippled" in one way or another—that is, failures in society. Mrs. Radcliffe's frankness and independence of mind has earned for her, among those who do not know her well, the reputation of being a "snob."

One of those strongly influenced by Mrs. Radcliffe is Mrs. Ager, a young attractive woman of sterling character. She is extremely high strung and nervous. As a child, she gave promise of a career in the arts. Her marriage came about after all hope of a career was abandoned. The project has given to the Agers what is hoped will be a "new deal." As one of the younger, more intelligent families, the Agers have received recognition. The duties of her office in the Consumers' Club are Mrs. Ager's foremost interest and satisfaction. Her training in business has been of especial value.

Among the general membership of the Consumers' Club we may note the attitudes of some of our colonists in relation to the new and somewhat revolutionary practices inherent in a cooperative economy. Mrs. Hochs, never the cooperator at heart her husband is, in her disappointment finds it hard not to whine when faced with a new situation in the consumer ranks. Mrs. Sidel, really knowing little as to the underlying fundamentals is on the other hand perfectly willing to learn. She has never been heard to voice discontent. Mrs. Ajax is the same, always very considerate, but much more timid. Mrs. Ewald cooperates in the consumer club program, but rather grudgingly. She seems unable to extend herself for the community. Mrs. Abrill is always dependable—a diplomatic, retiring, but clever woman. Mrs. Ahcavy, inactive in the community as is Mrs. Ingersoll, is

cooperative to the best of her ability. Both these women, as foremost centers of attraction in the second test, are extremely well liked for their warm, homely reserve.

The women of the Consumers' Cooperative Board almost without any help from outside, have struggled to establish, against many odds, this vital component part of the community economic structure. The problems of the men in the factory and agricultural cooperatives seemed to overshadow those of the Consumers' Cooperative which were questions of "merely buying or not buying" in the community store. However, the very weakness of the bond that buying at the same store creates, as compared to the bond of cooperative working, increased immeasurably the difficulties in establishing the consumers' cooperative store. Ignorance of cooperative principles, along with deeply rooted practices of city buying, with its attendant consumers' services, etc., made the consumers' cooperative truly a pioneering effort on the part of a handful of board members.

CONCLUSION

Throughout this study the writer has found and endeavored to report the therapeutic value inherent in sociometric testing and assignment. It is evident that problem areas may be discerned and treated sociometrically through an assignment technique which removes the subject and places him in a "better soil." Such technique is based, of course, on the sociometric principle that all persons have within themselves a certain amount of curative energy for other people and a capacity to respond to the presence of that energy in others.

The fact that a decrease from six to four unchosen families occurred from the first to the second test may well be significant. Since we regard the project as a lifetime affair, the bringing about of a greater mental happiness to two families has great import. If in the course of the next few years through sociometric technique, and whatever means natural to the situation, one more of the four "unincluded" families wins an acceptable position, there will be built up gradually a strong human collective, as well as a strong economic collective, if indeed the latter ever can become truly strong unless the former lays a basis for it. We know from control studies (3, p. 54) that the building up of reciprocal relations and the gradual integrating of one newcomer after another into a community in process of formation has a cumulative effect.

Even though the community in Centerville consists of a highly selected group bound together by common interests and striving towards common goals and thus theoretically a highly integrated group, we find running beneath the surface psychological cross currents that make for dissatisfaction and unhappiness, and finally maladjustment to the situation. Sociometric testing affords an efficient way of getting a picture of the psychological currents which ebb and flow in any community, and the groupings, desirable and undesirable, indicated by them. Of course the tests should be followed up by work with individuals and by experimentation with different groupings.

The project is being built from within, that is, each family has expressed and carried out a spontaneous desire to participate and make the project possible. If this desire, often requiring much sacrifice to fulfill, had not been strong in each family there would have been no Centerville. Consequently the use of any scientific technique which would endeavor in any way to assist the course of the project's human development should be welcomed. There is in the sociometric approach, although it is scientific in the sense that the data accumulated is capable of analysis and measurement, a technique which offers as far as we know the only instrument capable of fostering social community growth motivated solely from the point of view of the participants. This is the reason we believe that most of the families here studied have so greatly appreciated its application. Properly applied, it may, as this study suggests, produce in a short length of time a more harmoniously knit structure of relationships within a community.

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IN MEMORIAM

WILLIAM A. WHITE

1870 - 1937

Dr. William A. White, internationally known psychiatrist, author, teacher and administrator, died on March 7, 1937, at his home in St. Elizabeth's Hospital, Washington, D. C.

He was born in 1870, in Brooklyn, New York. His college education was obtained at Cornell University and he received his medical degree from the Long Island Medical College in 1891. Following this, he served internships in the Alms House Hospital on Blackwell's Island and also at the Long Island Hospital. In 1892 he was appointed Assistant Physician at the Binghamton State Hospital where he served for eleven years, to be called to the superintendency of St. Elizabeth's Hospital in 1903 following the death of Superintendent Richardson. To this institution he devoted his untiring energies and superior abilities, developing many new units and departments for the study and treatment of mental disorders, until the end of his life.

No biographical sketch can do justice descriptively to the meaning and importance of Dr. White's career and accomplishments, inasmuch as his name and works constitute so great a part of American psychiatry. For more than forty years he was concerned with processes of originating and improving the science of mental disorders, where, with unremitting toil and assiduous devotion he stood for progress and the practical side of idealism. The story of these years may be found in his autobiographical work *Forty Years of Psychiatry* (Nervous and Mental Disease Publishing Co., Monograph Series No. 57) which is not merely an autobiography but an account in perspective of his chosen field.

Early in his Binghamton State Hospital experience he became acquainted with Dr. Smith Ely Jelliffe of New York, in whom he found an understanding friend and collaborator. Their community of interests resulted in an exceedingly productive output of psychiatric literature including a sixteen hundred page, two volume work by British and American authors, entitled *The Modern Treatment of Nervous and Mental Diseases; a Text-*

book of Neurology and Psychiatry, and numerous shorter works including the translation of foreign books.

Stimulated by the then recent developments in psychoanalysis, Drs. White and Jelliffe founded the Psychoanalytic Review in 1913. Dr. White was one of the few mature psychiatrists in whom the psychoanalytic doctrines aroused an active interest. He saw in these methods not only a new approach to the understanding and treatment of the obscure mental disorders including the psychoneuroses, but also a great aid in the interpretation of the various aspects of human behavior. He was ever ready to study and to consider new theories and methods in his chosen field of psychiatry but his attitudes and writing were definitely influenced throughout his later years by the accomplishments of the psychoanalytic movement.

His *Outlines of Psychiatry*, a remarkably useful textbook for students, was first published in 1907. Since that date it has gone through fourteen new, revised, and elaborated editions. His bibliography of published works is an unusually large one in which many titles of complete monographs and books are found, including *Mental Hygiene of Childhood*, *Fundamentals of Psychiatry*, *Medical Psychology*, *Lectures in Psychiatry*, *Essays in Psychopathology*, *Foundations of Psychiatry*, *Mental Mechanisms*, *The Meaning of Disease*, and *Insanity and the Criminal Law*.

Dr. White devoted practically his entire lifetime to the detailed study of the nature of mental mechanisms. He believed that the results of mental functioning, in general terms, was to adapt the individual to the environment. Mind was considered to be strictly an adaptive process. He was always interested in comparing and contrasting the problems of the internist on the one hand and the psychiatrist on the other. He emphasized that the former was concerned chiefly with the problems of the functioning and pathology of the organs inside the body and that the latter's interests were devoted to the relationships between the individual and society, that is, to the study of the individual in relation to the world in which he exists and in which he has to maintain that existence at certain levels¹. To a considerable extent he was a psychobiologist, given to thinking of the "organism as a whole," and while believing that the psychiatrist's main field was in the realms of social pathology realized and

¹Dr. White had long been interested in sociometric work and shortly before his death had accepted a post on the Board of Contributing Editors of *Sociometry*.

emphasized that he should also be interested in the functioning of the various organs and parts of the body which were so integrated as to form the individual as such. He consistently spoke in terms of physiological processes and saw nervous functions in relation to the fundamental behavior patterns of the individual. He thought of the organism as composed of vegetative, neuron and symbolic levels of functioning and always emphasized that the many components of these three levels operated as a whole according to the laws of organic evolution and that the purpose of this functioning was to adapt the individual to a very complex environmental life situation.

"What is the organism or the individual attempting to do?" was one of his oft-repeated phrases. He maintained that the action patterns of the organism, including pathological expressions, could be explained only by a knowledge of their antecedents; that a psychosis constituted a form of reaction which could only be interpreted when the complete history of the development of the individual was known, including his various goals in life. He considered the psychosis to be the resultant, the issue for the time being, of a conflict between unsatisfied instinctive desires which had been repressed into the region of the unconscious and the conscious voluntarily directed tendencies of the individual.

While he followed Freud in most of the latter's major concepts, he often spoke of the value of certain contributions of Jung, Adler, Rank and many other contributors in the field of psychopathology. He was an omnivorous reader in several branches of science and had a most unusual ability to synthesize into a unified coherent conception the major thoughts and contributions of a large number of researchers in general scientific fields, as well as in those having directly to do with psychopathology. He was by nature a philosopher; this trend is amply exemplified in many of his works. He never failed to point out the pathways in which one would be justified in indulging in speculation and advancing hypotheses in fields where it is not yet possible to enter with experimental methods.

That his abilities were well recognized by his associates and contemporaries is well shown in the numerous honors bestowed upon him. He served as President of the American Psychiatric Association, of the First International Congress of Mental Hygiene, of the American Psychoanalytic Association, of the American Psychopathological Association and of the Society

for Nervous and Mental Diseases of the District of Columbia. He was a member of a great many scientific organizations including the American Neurological Association, the American Medical Association, the American College of Physicians, the American Congress on Internal Medicine, the Washington Academy of Sciences, the American Institute of Criminal Law and Criminology, the National Committee for Mental Hygiene, the Federal Hospitalization Board, the Medical Section of the National Research Council and of numerous local medical and psychological societies. He received honorary degrees from Brown University and from George Washington University.

This long list of scholarly productions and professional attainments and connections is a tribute to his original thinking, intellectual integrity and sincere interest, and attests his capacity for work and the ever present urge to create, in spite of the heavy burden of regular duties associated with the administration of a large hospital for mental diseases. He was in constant demand as a public speaker, particularly in the fields of mental hygiene and forensic medicine where he revealed a rare knowledge of human relationships.

He was an outstanding teacher and displayed characteristically the ability to interpret and simplify the often complicated contributions of various scientific authors. He was Professor of Psychiatry in the George Washington University for many years and also had a similar chair in Georgetown University for a long period of time. However, these professional accomplishments formed but a part of his distinction. To his numerous assistants, students and friends there are even more important facets to his life. He was known everywhere as a loyal friend, a fair minded, impartial judge of human affairs, a sound counsellor and a stimulating force to those who needed encouragement.

He was an inspiring writer, an exceptionally gifted orator, an unusually successful teacher whose lectures contained sound judgment and hard common sense, as well as an outstanding member of the community in which he lived, showing a generous interest in its activities and welfare. Perhaps above all he was a practical idealist, aiming toward the highest standards of life. He will be sadly missed by all who knew him.

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IN MEMORIAM

ALFRED ADLER

1870 - 1937

Alfred Adler was first and foremost one who understood human nature. Small samples of behavior, slight indications of expression were meaningful to him, often sufficient to enable him to grasp the whole personality. Those of us who listened to him interpret case histories were amazed again and again at the way in which he would sketch in the very nature of the person from the meager outline of factual material presented to him. In this he was truly an artist. Equally amazing was his subtlety and ingenuity in handling the case; having grasped the situation, he was never at a loss to deal with it. He would make the patient understand by a gesture, or a turn of the argument, or even by the stab of a well-pointed joke. Of wit he had a most unusual and ready store and his knack of clarifying a situation by the use of humor or of vivid anecdotal data or of quotations from Shakespeare stood him in excellent stead in his teaching as well as in his therapy. With Dr. Adler's passing we lose his personal techniques of clarification, his powers of understanding, and his skill of healing.

He has left with us the theory of "Individual Psychology." Unlike most psychologies this grew out of his dealings with people as a physician and has the virtue of being immensely practical. Its teachings have proven so useful as to have found representation in our everyday vocabulary. The great popularity which the theory has achieved is due in good part to the simplicity with which it can be applied; in part, too, to the positive aspects of its contents. Its tenor is one of encouragement for the individual, and its guidance, emphasizing the individual's relation to the group, conforms to the teachings of the great religious and ethical leaders of all times.

This very popularity harmed Adler's academic standing and has obscured the theoretical significance of his "Individual Psychology." Among its fundamental concepts is the realization that the personality is determined neither by heredity nor by environment. Although Adler pointed out the influence of such

environmental patterns as the birth order, he maintained that the factor of ultimate importance is not the objective situation itself, but the individual's way of regarding it, namely, his opinion of the situation and of the world. In his first book on organ inferiority we find as motto: "*Omnia ex opinione suspensa sunt.*" (Everything depends on the opinion one has of it.) His contribution to this knowledge is that the opinion cannot be ascertained by what the individual says or thinks but by what he does. Every detail of a person's behavior is an expression of his "style of life," which in turn is the expression of the creative power of the individual; it is *sui generis*. This is paralleled by recent anthropological theory. Culture, the creation of the group, is considered as determined by neither heredity nor environment, but as *sui generis*.

In the light of this emphasis on the subjective aspect of behavior we may seek to understand Adler's rejection of statistics. In dealing with cases he saw the need for inspiring hope and courage, and in this he went so far as to venture the battle cry, "anyone can do anything—provided he does not limit himself." He was guided by the example of those who managed to overcome their inferiorities and to find a successful adjustment to life in spite of them.

The successful adjustment of an individual depends upon his capacity to cooperate. According to Adler the tasks which confront man fall into three groups—work, love, and the relationship to one's fellow-men—and all of these are social problems. Man is driven to the solution of these problems by one motivating force, the "striving for superiority." The mistaken style of life, which leads to failure, strives in a way which is not cooperative, and hence it is the task of therapy to increase the individual's social feeling through a realization of his mistakes and through re-education. With his strong feeling for pregnant expressions Adler summarized this problem as one of "private sense versus common sense." He defined psychology as the study of the way in which an individual relates himself to the world. Today one finds this social point of reference for all mental activities, and consequently for maladjustments as well, receiving growing recognition in fields so diverse as anthropology and the laboratory situations of experimental psychology.

Just as Adler emphasized the relationship of the individual to his group, so, throughout, he saw the relationship of all aspects of the personality to the whole. All separate functions

are subordinated to the organism itself and may be used to express the individual style of life. Seeming contradictions within individuals, such as ambivalence or dual personalities, are faulty interpretations rather than realities. The unity of the personality receives possibly the greatest stress of all the concepts in Individual Psychology.

To measure the importance of Adler's contribution to psychological knowledge would be an impossible task. There are truths which, once they have found expression, seem so simple as to be self-apparent. Some of Adler's concepts are of this nature; they have rapidly become common property and their origin has become obscured. Further, some of his concepts have become merged in the general trend of ideas of our time, for Adler anticipated the beginning of certain broad trends away from atomism and mechanism, toward organicism. In the accumulation and the development of thought the demarcation of one man's creation is not of great importance. It is significant for further progress that ideas should stimulate and harmonize trends of thought. This would well seem to be the peculiar qualification of Alfred Adler's contribution, and it is this tribute which can be paid in fullest measure to his life and work.

HEINZ ANSBACHER.

ROWENA RIPIN ANSBACHER.

REVIEW

MANNHEIM, KARL: *Ideology and Utopia; An Introduction to the Sociology of Knowledge* with a preface by Louis Wirth [translated from the German by Louis Wirth and Edward Shils] (International Library of Psychology, Philosophy and Scientific Method) Harcourt, Brace and Co., Inc., 1936, XXXI+318 p. \$4.00.

The sensitive individuals of any given age are not ordinarily affirmers or answerers; they are, on the contrary, inquirers; they "sense" what is about to become important and consequently they ask the new question. Having asked the new question, they often proceed to search for answers, or to assist in doing so, but their chief significance rests upon their ability to formulate a fresh inquiry. In these days of disagreement and violence it becomes obvious that the sensitized persons are those who ask the following question in some form or other, namely: *Is it probable and possible to include human relations within the scientific discipline?* If the ultimate answer to this question is affirmative, then experience may have rational meaning, education may have a realistic purpose, and life itself may be imbued with hope and promise. If, on the other hand, the answer is negative, then it appears that man's almost incredible success in applying scientific method to his material environment will culminate in confusion and final failure.

Professor Mannheim is one of the sensitive personalities of our time; he is aware of the nature of our true and crucial problem and he asks the pertinent question. Whether or not he also hints at the correct answer is another matter concerning which judgment may be reserved. My present purpose in reviewing Mannheim's new book is to help in clarifying the question, and also, hopefully, to induce others to ask the same question from their special points of view. When enough people, especially scholars, raise the basic question concerning human relations, constructive work will begin. I may as well open my argument with an attempt to restate this question in the form of a few simple propositions:

- (a) It appears that the more we learn about the physical world and the more we interfere with natural processes, the greater is the likelihood that we shall disturb and distort those automatic controls which tend toward equilibrium.
- (b) The more we disturb the "normal" balances or

controls of nature, the greater is the likelihood that we shall precipitate sudden crises for the control of which science is unprepared.

- (c) The greater our advance in the physical sciences, particularly in their adaptation to technology, the greater is the likelihood that we shall disrupt human relationships.
- (d) As human relationships become more complex, due to the above sequence of events, social controls tend to become more arbitrary and irrational.

If these propositions are now combined, it appears that the basic problems of a technological society are, first, how to bring human relationships to higher levels of consciousness; second, how to devise orderly methods of social control without the sacrifice of human or personal dignity.

Professor Mannheim illuminates the question implied in this proposition and I shall now proceed to present his viewpoint in condensed form. As a preliminary note it should be stated that Professor Mannheim belongs to the pragmatic tradition. He is an experimentalist, not an absolutist. Although his outlook has been nourished by Marxism, he is no Hegelian. It is because of his kinship with the characteristic pragmatism of American thought that his book has timely importance for American thinkers.

The fact that there is a persistently illogical element in human relations proceeds from the underlying fact that individuals do not think as individuals but rather as members of a social group. One cannot, therefore, trace an individual's thought by a genetic study of that individual's history. On the contrary, if one is to understand the way an individual thinks, one must go back to the social setting out of which his mode of thought arose. This assumption does not rest upon a mystical conception of a "group mind" but rather upon the realistic observation of the way human behavior is conditioned by social experience.

Professor Mannheim selects for his discussion two modes of thought which he names *Ideology* and *Utopia*. When we think ideologically we think in terms of our interests; this means that our "collective unconscious" obscures the real situation; the "interest-bound" person can only see those facts which impinge upon his interests. Ideological thinking characterizes primarily the ruling classes and leads to conservatism. Utopian thought,

on the other hand, represents those who wish to destroy the existing situation in order to create a new one in which their interests will be realized. Utopianism is, therefore, revolutionary but when those of the Utopian mode of thought succeed to power they transform their thought into an ideology. Thus, while the Communists of the Soviet Union rose to power as Utopians, they must now become Ideologists. According to Professor Mannheim, both Ideological and Utopian modes of thought are distortions and will remain so unless new levels of consciousness are achieved.

The above thesis is familiar (although Professor Mannheim uses language which is not entirely common to American thought) but its elaboration leads to some fine distinctions. When, for example, Professor Mannheim raises his practical questions, namely: "Is a science of politics possible?" he proceeds to analyze and to discriminate the various mentalities now involved in social control. Without attempting anything more than a sketch of his categories, it should prove useful to at least name them. The historic forms of political thought are five in number, namely:

- (1) The *bureaucratic-conservative* who believes that all political problems are essentially problems of administration. His frame of reference is legalism and to him a science of politics is merely the science of administration.
- (2) The *historical-conservative* who recognizes the existence of an irrational element in politics but insists that nothing can be done about it, except to rely upon the restorative function of the "folk-spirit" (*Volkergeist*).
- (3) The *liberal-democrat* who recognizes that emotions, interest, and will play an important role in politics but believes that these are all amenable to education and intelligent treatment.
- (4) The *socialist-communist* who believes that ideological thinking is an inescapable fact but that this does not necessarily lead to error. To him politics consists in understanding the structural tendencies in society and in being ready to take advantage of the "break" in the rationalized structure, at its disintegrating point.

- (5) The *fascist* who believes that politics is activism and that its processes emanate from the decisive deed of the intuitive leader or dictator toward whom the people have become unconditionally subordinated.

Professor Mannheim suggests that some sort of resolution of these various mentalities is feasible but he scarcely goes beyond suggestion. His own predisposition places him clearly enough in categories three and four, namely as a thinker with liberal-democratic tendencies which have been modified by socialist-communist thought. He asks for a dynamic synthesis and appears to believe that the intellectuals of the contemporary world are sufficiently free to lay the foundations for such a synthesis in a new science of politics. The very idea of a science of politics calls for a new frame of reference for the concept of science itself. Professor Mannheim is prepared for this consequence and believes that the present frame-work of science is much too narrow.

It is at this point that Professor Mannheim's thesis becomes philosophical in character. What he really asks for is a new epistemology, a new conception of the nature of truth and fact. The intellectuals, upon whom this task should fall are those who have freed themselves, relatively, from Ideologies and Utopias. The new epistemology and the social science will not be constructed by those intellectuals who have become affiliated with socialistic or communistic parties; the social sceptics are also eliminated, and those who have taken refuge in movements to restore religious idealism. So far as Professor Mannheim goes in describing this new task in terms of a working project, it appears as a search for the interrelationship between thought and action, a method for describing contemporary situations in terms of that variety of knowing which proceeds from social experience, and an obligation to save the social sciences from "sterile relativism." The epistemological factor in this program, namely the theory of social determination of knowing, may begin with a negative description of knowing in general. Thus, Professor Mannheim insists that knowing is not an historic development growing with respect to or in accordance with immanent laws; it does not follow from "the nature of things," nor from purely logical possibilities or "inner" dialectics. Positively, then, knowing is the product of existential situations. For those who request examples of this type of epistemology, Professor Mann-

heim suggests philology and the more modern history of art. He is aware of the certainty that researches of this sort will not end in statements of fact comparable to the affirmation that two plus two makes four. But he does believe that the sociology of knowledge will supply dynamic facts of such conviction as to cut through many of our current disagreements and confusions. These facts will be oriented with respect to meaning, and hence, will be serviceable to those who wish to move toward social action. Karl Marx has already laid some of the foundations for this new social discipline; Nietzsche recognized the problem in pragmatic terms; Freud has aided in showing how certain instinctive mechanisms conceal motives; Pareto has demonstrated that all thought is a form of distortion; and the Positivists, although mistaken in their conception of the nature of science, have laid the groundwork for a science of society. These are among the thinkers to whom reference will be made by those who embark upon Professor Mannheim's venture. Unhappily, for Americans, he omits some important sources of aid but it might seem to be poor taste to append the names of those American philosophers and social scientists who have opened a similar trail. After all, Professor Mannheim is a German scholar (now in exile) and it is natural that the bulk of his references should have come from European sources. It is my hope that American social scientists, sociologists especially, will read Professor Mannheim's book with care and tolerance. And, when he asks them whether or not they have anything to say about those current disagreements which frustrate our age, about the tendency toward polarity of thought, about violence and revolution, and about the possibilities of a more scientific control of social processes I hope that they will answer with frankness. If they do, we shall soon see American sociologists conducting new types of research.

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RECEIVED FOR REVIEW

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